



BADGER STATE

SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 29th Year
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Years of dedicated service bring national recognition to BWN members

By Jim Wiskow, AA9BB



Gus Bonow, W9IHW (left), Port Edwards, and Jim Caldwell, WB9YPY, Rhinelander, display their National Weather Service awards.

Photo by Carl Plotz, WB9JSW

In a luncheon held on Saturday, March 28th, 1998 at the Chalet restaurant in Wisconsin Rapids, two Badger Weather Net veterans received Special Service Awards from the National Weather Service and the Public Service Award from the American Radio Relay League.

The two surprised recipients were Gus Bonow, W9IHW, and Jim Caldwell, WB9YPY.

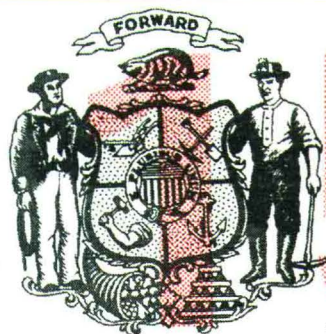
Rudy Schaar, Data Acquisition Program Manager at the National Weather Service at Sullivan, from the National Weather Service at Sullivan presented the weather duo with National Public Service Awards from the NWS. Accompanying Schaar was Randy Breezer, who wrote the computer software the BWN uses every day to collect weather data and then to send that data to Sullivan by modem file transfer.

Gus and Jim also received lengthy testimonial letters from the NWS.

Rick Elsener, W9RCW, BWN net manager, along with Section Manager Roy Pedersen, K9FHI, and Section Traffic Manager Art Evans, KA9KLZ, presented Gus and Jim with their certificates from the ARRL, duly signed by Rick Palm, K1CE.

Gus, W9IHW, has been a member of the BWN since its inception in 1964,

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Happy
Birthday,
Wisconsin!
Born May 29, 1848

The Coat of Arms

League inaugurates arbitration service

The League has inaugurated an arbitration service for hams, ham organizations, citizens and other groups having disputes relating to Amateur Radio. The ARRL Arbitration Service offers a substitute for litigation by providing binding arbitration to settle disputes. Arbitration will be arranged through the office of Chris Imlay, W3KD, the League's General Counsel. Arbitrators will include ARRL volunteer counsel. Potential cases could involve neighborhood interference situations, disputes within local radio clubs, disagreements between a hamfest committee and an attendee or exhibitor, or even the use of a frequency (typically, but not necessarily, involving one or more repeaters).

Creation of the Arbitration Service is the first step toward a complete Alternative Dispute Resolution (ADR) system, as envisioned by the ARRL Board at its January 1997 meeting. The ADR system ultimately could include mediation and non-binding arbitration.

In arbitration, the evidence and arguments are received and adjudicated by a neutral arbitrator—either an attorney regis-

tered with the ARRL Arbitration Service or a Volunteer Counsel. (Panels of three arbitrators will be appointed in cases involving more than \$10,000.) Arbitrators are sworn to remain impartial toward the parties—whether they are amateurs, amateur clubs, non-amateur neighbors, or neighborhood or municipal organizations. In disputes involving frequency coordination, the ARRL has reserved sole authority to designate the appropriate responsible coordinating organization.

During the informal process, the parties represent themselves (although parties also may hire attorneys if they wish). Unlike litigation, however, the arbitrator's judgment is final and not subject to appeal. Each party will get a chance to present material and relevant evidence, and exhibits may be received in evidence, similar to a court trial. Witnesses shall be sworn and subject to questions and cross examination. The arbitrator will issue a written award within 20 days from the close of the hearing or final submission of documents. The

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Edited by Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901 • kebnetter@palacenet.net

Swapfests and Other Social Events

SATURDAY, MAY 2, 1998. Twentieth Annual Cedarburg Swapfest. Held at the Circle-B Recreation Center, Highway 60 and County I (located 20 miles north of Milwaukee, west of Grafton). Contact: Ozaukee Radio Club, W58 N985 Essex Drive, Cedarburg, WI 53012-1439. (414) 377-2784 or (414) 284-3271.

SATURDAY, MAY 9, 1998. Lakeshore Hamfest and Computer Swapfest. Manitowoc County Expo, intersection of Hwys 42-151 and I-43 on Cty. Hwy. R, Manitowoc, WI. Contact: ManCoRad Radio Club, P.O. Box, 204, Manitowoc, WI 54221-0204. Glen, AA9BT (920) 684-7096 or Red, N9GHE, (920) 684-9097.

SUNDAY, JUNE 7, 1998. 21st annual Central Wisconsin Radio Amateurs Swapfest and Auction, U.S. Army Reserve Center, Junction City, WI. Contact: John Feltz, W9JN, 973 E First St., Junction City, WI 54443-9614. (715) 457-2506. e-mail:jfw9jn@tznnet.com

SATURDAY JULY 11, 1998. Eau Claire ARC 15th annual Hamfest & Computer Expo., Eau Claire County Exposition Center, Eau Claire WI. Doors open at 8:00 a.m. Advance setup available. VE exams. Contact: Jim Staatz, WB9RBP, (715) 838-9108 wb9rbp@aol.com or Carol Ceraso, N9UTA, (715) 723-9205 ceraz@execpc.com ECARC, PO Box 1867, Eau Claire, WI 54702-1867.

SATURDAY, JULY 11, 1998. South Milwaukee Amateur Radio Club Swapfest, American Legion Park, Shepard Avenue, South Milwaukee, WI. Starting at 6:00 a.m. Contact South Milwaukee ARC, P.O. Box 102, South Milwaukee, WI 53172. (414) 762-3235.

SUNDAY, JULY 26, 1998. Racine Amateur Radio and Computer Show. South Hills Country Club, I-94, East

Frontage Road between Highway 20 and Highway K. Contact: RMC, PO Box 3, Racine, WI 53401.

SUNDAY, AUGUST 2, 1998. The Marshfield Area Radio Society will be holding their 7th annual picnic in the park. Hamnic potluck dinner and swapfest at Wildwood Park. Gather around 11:00 a.m. Bring a dish to pass. Contact: Christopher Strong, KB9NMH OR Guy Boucher, 107 West Third Street, Marshfield WI 54449. (715) 384-4323. Via packet radio to KF9XXX@W9IHW.E5.A1.WI.USA.NA or e-mail guyboucher@tznnet.com

SUNDAY, AUGUST 2, 1998. Hamfesters Hamfest. Will County Fairgrounds, Peotone, IL. Contact: David F Brasel, NF9N, 6933 W. 110 Street, Worth, IL 60482. (708) 44-0580. Amateur Radio Info Line (708) 535 AHAM.

SATURDAY, AUGUST 8, 1998. Circus City Swapfest, Sauk County Fairgrounds, Baraboo WI. Contact: Steve Schulze, N9UDO, (608) 356-2313/356-4777 or Bill Klinkner, N9KXX, (608) 643-6908/643-6453. <http://www.thelorax.com/~sschulze/hamfest.htm>

SATURDAY, AUGUST 8, 1998. International Order of bOZo's 2nd Hamradio and Computer Fest. at Tommy's Village Lanes, Hwy 57, North, Hilbert, WI. Contact: Mike Ortlieb, KN9P, W2104 Crosstown Rd., Hilbert, WI 54129. (920) 853-7073.

SATURDAY & SUNDAY, SEPTEMBER 19 & 20, 1998. Peoria Area ARC SUPERFEST, Exposition Gardens, Peoria IL. Contact: Superfest '98, P.O. Box 3508, Peoria IL 61616-3508.

SATURDAY & SUNDAY, SEPTEMBER 26 & 27, 1998. RADIO EXPO 98. Lake County Fairgrounds Rts. 45 & 120, Grayslake, IL. Contact: Chicago FM Club, PO Box 56724, Harwood Hts, IL. 560656-0724. (708) 457-0966. <http://www.chicagofmclub.org>

SUNDAY, NOVEMBER 8, 1998. Fox Cities Hamfest, Starlite Club, Hwy. 55 North of Kaukauna, WI.

Contact: Chad Pennings, N9PRC, 1912 Russett Ct., Apt. 7, Appleton, WI 54914. (920) 993-0485.

SATURDAY, JANUARY 9, 1999. West Allis Radio Amateur Club, 27th annual Midwinter Swapfest, Waukesha County Expo Center Forum, Waukesha, WI. Contact: WARAC, PO Box 1072, Milwaukee, WI 53201-1072.

TUESDAY, FEBRUARY 23, 1999. Red Cedar Repeater Association Auction, American Legion Post 53, 634 Water Street, Eau Claire, WI. Contact: Steve Hart, KA9OMC, E616 810th Ave., Knapp, WI 54749. (715) 665-2374.

See also the back page and flyer ads for additional information on many of these events.

Let us know of your dates as soon as you know them. We will list them and perhaps help avoid conflicts with other events.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.



CLUB MEETINGS

Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the March 1998 meetings column for the latest complete listing. No changes have been reported to BSSS since that listing.

The Test Point



Amateur Radio Examination Locations
and Schedules in the Wisconsin Area

May 02, 1998	Oshkosh (Omro), WI
May 02, 1998	Racine, WI
May 02, 1998	St. Paul, MN
May 09, 1998	Blaine, MN
May 09, 1998	Madison, WI
May 09, 1998	Manitowoc, WI
May 09, 1998	Oak Creek, WI (MRAC)
May 09, 1998	Onalaska, WI
May 14, 1998	Apple Valley, MN
May 16, 1997	Redgranite, WI
May 16, 1998	Cottage Grove, MN
May 16, 1998	Milwaukee, WI (BE)
May 16, 1998	Sheboygan, WI
May 16, 1998	Loves Park, IL
May 19, 1998	Eden Prairie, MN
May 23, 1998	Bloomington, MN
May 30, 1998	Milwaukee, WI (MRAC)
May 30, 1998	Tomahawk, WI
June 06, 1998	Oshkosh (Omro), WI
June 06, 1998	Racine, WI
June 06, 1998	St. Paul, MN
June 07, 1998	Stevens Point, WI
June 11, 1998	Apple Valley, MN

Badger State Smoke Signals

Amateur Radio
Education and Information

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EDITORIAL BOARD: Ken Ebnetter, K9EN; Dave Knaus, WA9POV; Don Evenson, K9JYX; Jim Romelfanger, K9ZZ.

Subscriptions

1 year	(12 issues)	\$13.95
2 years	(24 issues - save \$1.95)	\$25.95
3 years	(36 issues - save \$3.90)	\$37.95

Subscription form is on page 5. Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1. The only exception is for participating clubs' minutes. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the material should be sent no later than

the 9th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebnetter. Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebnetter. Club, swapfest, and Test Point information should be sent to Ken Ebnetter.

Swapfest ADS should be sent to Jim Romelfanger NO LATER THAN EIGHT WEEKS BEFORE THE EVENT'S DATE.

Subscriptions should be sent, with check or money order, to Ken Ebnetter.

Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. THIS CREDIT IS MANDATORY, AND NO MATERIAL MAY BE PRINTED OR POSTED UNLESS IT IS GIVEN.

This newspaper is produced by volunteer radio amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901.

Badger State Smoke Signals is incorporated as a Wisconsin non-stock, non-for-profit organization.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

June 13, 1998	Blaine, MN
June 13, 1998	Madison, WI
June 13, 1998	Marshfield, WI
June 13, 1998	Oak Creek, WI (MRAC)
June 16, 1998	Eden Prairie, MN
June 20, 1998	Cottage Grove, MN
June 20, 1998	Loves Park, IL
June 20, 1998	Milwaukee, WI (BE)
June 27, 1998	Bloomington, MN
June 27, 1998	Milwaukee, WI (MRAC)
June 27, 1998	Tomahawk, WI
July 04, 1998	Oshkosh (Omro), WI
July 04, 1998	St. Paul, MN
July 09, 1998	Apple Valley, MN
July 11, 1998	Blaine, MN
July 11, 1998	Madison, WI
July 11, 1998	Oak Creek, WI (MRAC)
July 15, 1998	Sheboygan, WI
July 18, 1998	Cottage Grove, MN
July 18, 1998	Loves Park, IL
July 18, 1998	Milwaukee, WI (BE)
July 21, 1998	Eden Prairie, MN
July 25, 1998	Bloomington, MN
July 25, 1998	Milwaukee, WI (MRAC)
July 25, 1998	Tomahawk, WI
August 01, 1998	Oshkosh (Omro), WI
August 01, 1998	St. Paul, MN
August 08, 1998	Blaine, MN
August 08, 1998	Madison, WI
August 08, 1998	Oak Creek, WI (MRAC)
August 13, 1998	Apple Valley, MN
August 15, 1998	Cottage Grove, MN
August 15, 1998	Loves Park, IL
August 15, 1998	Milwaukee, WI (BE)
August 15, 1998	Redgranite, WI
August 18, 1998	Eden Prairie, MN
August 22, 1998	Bloomington, MN
August 29, 1998	Milwaukee, WI (MRAC)
August 29, 1998	Tomahawk, WI
September 05, 1998	Oshkosh (Omro), WI
September 05, 1998	Racine, WI
September 05, 1998	St. Paul, MN
September 10, 1998	Apple Valley, MN
September 12, 1998	Blaine, MN
September 12, 1998	Madison, WI
September 12, 1998	Marshfield, WI
September 12, 1998	Oak Creek, WI (MRAC)
September 12, 1998	Onalaska, WI
September 12, 1998	Sheboygan, WI
September 15, 1998	Eden Prairie, MN
September 19, 1998	Appleton, WI
September 19, 1998	Cottage Grove, MN
September 19, 1998	Loves Park, IL
September 19, 1998	Milwaukee, WI (BE)
September 26, 1998	Bloomington, MN
September 26, 1998	Milwaukee, WI (MRAC)
September 26, 1998	Tomahawk, WI
October 17, 1998	Redgranite, WI
November 01, 1998	Kaukauna, WI
November 07, 1998	Menomonie, WI
November 07, 1998	Onalaska, WI
November 18, 1998	Sheboygan, WI
December 19, 1998	Redgranite, WI
January 23, 1999	Appleton, WI
Monthly, 1st Sat.	Racine, WI
(except January, July & August)	
Monthly, 1st Sat.	Oshkosh (Omro), WI
Monthly, 1st Sat.	St. Paul, MN
Monthly, 2nd Thu.	Apple Valley, MN
Monthly, 2nd Sat.	Oak Creek, WI (MRAC)
Monthly, 2nd Sat.	Madison, WI
Monthly, 2nd Sat.	Blaine, MN
Monthly, 3rd Tue.	Eden Prairie, MN
Monthly, 3rd Sat.	Milwaukee, WI (BE)
Monthly, 3rd Sat.	Loves Park, IL
Monthly, 3rd Sat.	Cottage Grove, MN
Monthly, 4th Sat.	Bloomington, MN
Monthly, Last Sat.	Milwaukee, WI (MRAC)
(except December)	
Monthly, Last Sat.	Tomahawk, WI
(January thru October only)	
Quarterly	Marshfield, WI
(Second Saturday every third month.)	
Quarterly	Eau Claire, WI
(Second Saturday Jan., Apr., & Oct.)	
plus annual summer hamfest.)	

Many Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

GENERAL RULES

FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Some examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL. Send a 32c/ SASE if you request one from the ARRL. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$6.35 payable to "ARRL/VEC".

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE or CSCE to the VEC. You must also have two good copies of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 610 and most VEC want a copy for their records. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

For those with internet access, a listing of exam sessions is available from:

<http://www.arrl.org/arrlvec/examsearch.phtml>

By checking this page, a person can find out registered VE sessions anywhere in US and some overseas. You can search by country, state or zip code. The listing is not specific to any particular VEC, it is a master database. (Thanks to KB9EQI for information.)

MILWAUKEE RADIO AMATEURS' CLUB (MRAC/VEC)

SECOND SATURDAY - OAK CREEK, WI

LAST SATURDAY - MILWAUKEE, WI

SECOND SATURDAY DATE: 1:00 p.m. to 3:00 p.m. at Wauwatosa Savings Bank, 6560 S. 27th St., Oak Creek, WI.

LAST SATURDAY DATES: (except December): 9:00 a.m. to 12:00 noon at Amateur Electronic Supply (AES), 5710 W. Good Hope Rd., Milwaukee, WI. Note: For Additional Information: Call (414) 466-HAMS (Answering Machine).

Bring along your ORIGINAL license, CSCE (if any) and one (1) good quality photocopy of each, plus two forms of identification, such a driver's license, etc. Also required is \$6.35 for the exam fee. WALK-INS are welcome. To register in advance, use a post card: Print the grade of license you are applying for, your name, address, and telephone number. Send the card to MRAC/VEC, Milwaukee Radio Amateurs Club, PO Box 25707, Milwaukee, WI 53225.

BADGER EXAMINERS (BE) - MILWAUKEE

Badger Examiners group now testing at AES (Amateur Electronic Supply) at 6th and Good Hope, every third Saturday MORNING. Exam times are not 9:30 a.m. to 12:00 noon, at the old Sterman Printing shop, just 300 feet west of the AES store. Novice to Extra are offered, and all test materials are provided, fee is \$6.35, and bring your original license, or CSCE if needed. Also available are Commercial license exams GROL (General Radiotelephone license), GMDSS, Telegraph, Etc. Fee is \$35.00. For more information call Gary Sharbuno, W19M at (414) 355-0237.

MADISON, WI

VE exams are held in Madison every second Saturday morning of the month at 8 a.m. They are held at the operations building of the Madison Metropolitan Sewerage District at 1610 Moorland Rd. To get there take the Beltline (Hwy 12 & 18) to South Towne Drive. Go south 8/10 mile till South Towne Drive makes a bend and becomes Moorland Rd. and enter at gate.

You should bring a picture ID, your original licence and a copy of your licence. For exams beyond the novice tests, bring a check for \$6.35, made out to the ARRL/VEC. If the special 610 form with the medical exemption is required, contact me beforehand to obtain one. No appointments are necessary to take exams. For further questions, please leave a message on the mailbox or phone me at (608) 832-6631.

Mark Jenks, NZ9B

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Monthly exams are given 9:00 to 11:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted.

Talk in on 147.87/27. Inquiries and registrations should be directed to Robert N. Jensen, W0WLN, 5616 Cambridge lane #6, Racine, WI. Telephone (414) 886-8551.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Terry Collins, KB9AUP, W6564 Highway 8, Tomahawk, WI 54487. Telephone (715) 453-4633.

APPLETON, WI - ARRL/VEC

MANITOWOC, WI (HAMFEST)

KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. All test sessions in Appleton are held at James Madison Jr. High, 2020 S. Carpenter Street. Testing starting at 8 a.m. For Appleton information, contact George R. Croy, W9MDP, 2113 Twin Willows Drive, Appleton, WI 54914. (920) 730-0967. For Manitowoc or Kaukauna information, contact Larry Siebers, KD9IA (920) 759-1167.

STEVENS POINT, WI (ARRL/VE)

CWRA SWAPFEST

Contact Joe Larson, N9JW evenings at (715) 344-1182.

PEWAUKEE, WI

Kettle Moraine Exam Team. Held at the Pewaukee WCTC Campus Science Building, Room S101. 9:00 a.m. to Noon. Contact Al Johnson, AA7CS. (414) 568-0836. 103357.3222@COMPUSERV.COM

OSHKOSH (OMRO)

The Oshkosh VE Team will administer Amateur Radio exams monthly on the first Saturday. Registration begins at 8:30 a.m. and exams will be given from 9 a.m. until noon at the Omro Community Center, 130 W. Larrabee, Omro, WI. Walk-ins welcomed. Bring a good quality photocopy of your original license and any other necessary documents such as a CSCE, etc. The first session will be through W5YI/VEC, and then sessions will alternate between ARRL/VEC and W5YI/VEC. The exam fee is \$6.35. For more information, please call Dick Lemme, K9FA, at (920) 235-0987, e-mail lemme@vbe.com, or write Dick at 826 Jefferson Street, Oshkosh, WI 54901.

EAU CLAIRE

The Eau Claire ARC will hold exam sessions on the second Saturday in the months of January, April, and October, as well as on the date of their annual hamfest during the summer. For further information contact: Carl F. Searing, W9NW, 1129 Mc Kinley Road, Eau Claire, WI 54703-2219. (715) 834-1303.

REDGRANITE, WI (W5YI/VEC)

The Radio Amateurs of Wisconsin (RAW) will be holding test sessions at the Civic Center in Redgranite, 202 Pine River Road, one block from Highway 21. Turn north by Mosier's Sporting GoodsR store. Registration at 9:00 a.m. Bring two forms of identification, \$6.35 per test, two copies of all original documents, CSCE's, Licenses, etc. along with original documents. For further information, contact: Mark Miller, N9WT, (920) 231-1662 or Mike O'Connor, K9II (920) 231-7093.

WISCONSIN DELLS, WI

Wisconsin Dells City Hall, City Council Chambers. 10:00 a.m. to 2:00 p.m. Contact: K9WD, (608) 254-2895.

HUDSON, WI

Testing is held at the St. Croix County emergency government Center on Carmichael road in Hudson, WI. Registration begins at 8:00 a.m. and testing begins promptly at 9:00 a.m. Contact: Greg Miller, KB9JHL, 503 4th St., Hudson, WI 54016. (715) 386-9857.

MARSHFIELD, WI (ARRL/VEC)

Sponsored by the Marshfield Area ARS. Held at St. Joseph Hospital, 611 St. Joseph Ave., in the 1 West classroom located adjacent to the Westwood Cafeteria on the main floor of the hospital. Use the main entrance or any other entrance and follow the signs to the cafeteria. Registration starts at 8:30 a.m. with testing starting at 9:00 a.m. Talk in on the 147.18 Marshfield repeater. Walk-ins welcome. Contact: Walter Friant, WB0KIN, 2310 Wallonie Drive, Marshfield, WI 54449 (715) 387-3870.

(Continued on page 15)



Amateur Radio spectrum protection bill introduced

At the request of the ARRL, a bill has been introduced in Congress to ensure the availability of spectrum to Amateur Radio operators. The bill, HR 3572, the Amateur Radio Spectrum Protection Act of 1998, would protect existing Amateur Radio spectrum against reallocations to or sharing with other services unless the FCC provides "equivalent replacement spectrum" elsewhere. The bill was introduced March 27 by Rep Michael Bilirakis of Florida, a Republican, with the cosponsorship of Rep Ron Klink of Pennsylvania, a Democrat.

If approved, the measure would amend Section 303 of the Communications Act of 1934 to preclude reallocation of any primary Amateur Radio allocations or diminution of any secondary allocations, and would block any additional allocations within such bands that would substantially reduce their utility to Amateur Radio, unless the Commission at the same time provides "equivalent replacement spectrum" to the Amateur Service.

The bill points out that a basic purpose of Amateur Radio is to provide "voluntary, noncommercial radio service, particularly emergency communications," and that Amateur Radio has "consistently and reliably" provided emergency communication during and after

disasters. The measure notes that the FCC has "taken actions which have resulted in the loss of at least 107 MHz of spectrum to radio amateurs."

HR 3572 has been referred to the House Commerce Committee. An effort is under way to enlist additional cosponsors for the measure. Amateurs are encouraged to contact their Representatives and urge them to support the bill or to sign on as cosponsors. The full text of the bill is available at

<http://thomas.loc.gov/cgi-bin/query/z?c105:H.R.3572>:

The ARRL Letter, 4/3/98

FCC to allow electronic filings in rulemaking proceedings

The FCC has amended its rules to allow the public to file comments and other pleadings electronically via the Internet in many rulemaking proceedings. Starting later this spring, the FCC will permit electronic filing in most notice and comment rulemaking proceedings, most proceedings involving petitions for rulemaking, Notice of Inquiry proceedings, and petitions for reconsideration. The FCC initially had proposed electronic comment filing only for rulemaking proceedings, but--in response to public comments--expanded it to include the other filings.

The Commission says it's "committed to taking advantage of new information technologies to serve the public" and says its new Electronic Comment Filing System (ECFS) "will make it much easier for members of the public to participate in the Commission rulemaking process and will increase the efficiency of the Commission's operations." Electronic filing now is available only in proceedings specifically designated by the Commission. It will become generally available in early June.

The ECFS will allow members of the public to file, review and print documents on-line through the Internet, rather than having to rely on paper copies accessible through the FCC reference room or copy contractor. The ECFS will accept electronically filed comments in rulemaking proceedings, scan-in paper documents, and locate, retrieve, download and print any documents in the system.

For now, the Commission will not accept electronic comments in broadcast allotment proceedings because of its concern that electronic filings in those restricted proceedings might not be properly served on the parties, and to give the Commission more experience in electronic filing before including the large number of broadcast allotment proceedings.

The FCC acted on the matter April 2 (Report and Order FCC 98-56). Commissioner Gloria Tristani took issue with a provision to permit a midnight deadline for electronic comments while the deadline for paper filers continues to be 5:30 PM.

The complete announcement is at

http://www.fcc.gov/Bureaus/OGC/News_Releases/1998/nrgc8002.html--FCC

The ARRL Letter, 4/9/98

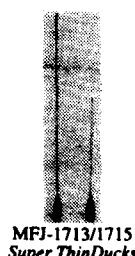
Andy Thomas suggests we're not alone

US astronaut Andy Thomas, KD5CHF/VK5MIR, thinks we may not be alone. Speaking from the Russian Mir space station via Amateur Radio April 8 with high school students in Roswell, New Mexico--the self-proclaimed UFO capital of the world--Thomas said in response to a student's question that he believes there is extraterrestrial intelligent life. "Yes, I think there probably is, when you consider the scale of the universe," he said during a scheduled Mir-school contact

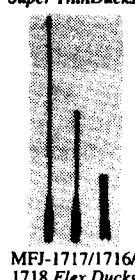
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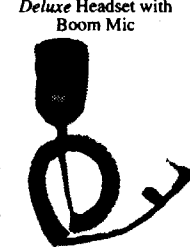
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MFJ-287, \$15.95 Mini/Kenwood. Tiny 2x1 1/4x1/4".

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MFJ-315, \$14.95 Add s/h

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Get maximum pull strength with these MFJ super strong magnet mounts. Stays put -- won't fly off your car at high speed. Euro-style has black poly finish with heavy duty scratch-resistance rubber guard. 17 feet of tough RG-58 coax with PL-259 connector. Select MNO or SO-239 mount. Low profile 3.5 inch base, 1 1/2 pounds:

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MFJ-1724B, \$14.95. World's best selling dual band 2 Meter/440 MHz magnet mount mobile antenna! Short 19 inch stainless steel radiator lets you park in your garage. Powerful 3 1/2 inch magnet, 15 foot coax with PL-259 connector. Scratch-resistance pad. Free BNC handheld adapter. Low SWR. Handles 300 Watts PEP.

MFJ-1729, \$29.95. Super*Gain™ dual band 2 Meter/440 MHz magnet mount mobile antenna is ham radio's most powerful. Outstanding gain on 440 MHz/2 Meters. MFJ's 27 1/2 inch stainless steel SlimLine Radiator™ cuts wind vibration for less SWR flutter -- gives longer range, better readability. 12 feet coax with PL-259. Low SWR lets your rig deliver full power safely. Handles 300 Watts PEP. Free BNC handheld adapter.

MFJ-1728B, \$24.95. 5/8 Wave 2 1/6 Meter Magnet Mount antenna. On 2 Meters, it gives you the maximum

possible theoretical gain of any single element antenna -- no matter how much others cost. On 6 Meters, it's a high performance full 1/4 wave antenna. Free BNC handheld adapter, low SWR, handles 300 Watts PEP, heavy duty magnet mount, 12 feet coax, 48 inch stainless steel radiator.

MFJ-1721, \$14.95. 2 Meter UltraLite™ weighs 2 ounces and has tiny but powerful 1 1/8 inch diameter mobile magnet mount. Thin 20 inch stainless steel whip bends to fit smallest briefcase. 9 feet of thin RG-174RU mini coax with BNC.

MFJ-1722, \$18.95. 144/440 MHz dual band UltraLite™.

MFJ-1734, \$39.95. Glass Mount dual band antenna is easy-to-install on glass windows. 26 inch stainless steel removable radiator adjusts for angled surfaces. Handles 50 Watts. Low SWR. Has 12 feet coax, cleaning pad, mounting hardware, SWR tuning tool. Free BNC handheld adapter.

MFJ-1738, \$29.95. Long range 2 Meter Glass Mount.

MFJ-1734 Dual Band Glass Mount

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MFJ-916 lets you use a dual band antenna with separate transceivers or separate antennas with a dual band transceiver. One SO-239, two PL-259 connectors. 50 Ohms. Handles 200 Watts PEP combined.

MFJ-916, \$29.95 Add s/h

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MFJ-641 RapidBattery™ Charger includes one charging slot. Extra charging slots available for other HTs, \$12.95 each. Have HT make and battery type ready when ordering.

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Wireless privacy bill passes House, hits Senate

In a resounding 414-to-1 floor vote HR 2369, the Wireless Privacy Enhancement Act of 1998, passed the US House of Representatives in March and now awaits action in the Senate. The house-passed bill includes a report that specifically resolves concerns that the ARRL raised with the staff of the House Telecommunications Subcommittee.

When HR 2369 was first introduced, the League feared that it unintentionally could have outlawed all out-of-band operations including MARS and Civil Air Patrol, as well as most scanning and short wave listening. These fears -- also voiced by scanner enthusiasts, volunteer fire departments and others -- were addressed by the bill's sponsor, Louisiana Republican Billy Tauzin, when the bill was amended last fall. However, the League continued to be concerned that certain provisions in the bill could be interpreted as forbidding the modification of linear amplifiers for 10 and 12-meter operation, as well as the modification of transceivers for MARS and CAP use.

In the days before the bill went to the floor, subcommittee staff worked with the League and with other involved parties to craft a committee report that would put our fears to rest. Committee reports are the official statement of "Congressional intent" on important legislation. The House voted on the bill and the report as a single package.

In part, the report made it clear that the Committee did not intend the legislation to prohibit hams from modifying linear amplifiers after purchase, as permitted by FCC rules, for use on 12 or 10 meters, or from building or modifying one amplifier per year to enable this capacity.

The report also said that the Committee did not intend that the proposed law be interpreted to discourage manufacturers from providing MARS and CAP modification information. The report also clarified other concerns raised by scanner enthusiasts, short wave listeners and manufacturers. The report's full text can be found at

<ftp://ftp.loc.gov/pub/thomas/cp105/hr425.txt>.

During the house debate on the bill, Tauzin and Florida Republican Cliff Stearns both took time to praise the volunteer work of Amateur Radio operators in the wake of natural disasters. There is no word on what the Senate plans to do about this legislation.

--Steve Mansfield, N1MZA

The ARRL Letter, 4/3/98

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The ManCoRad Spring dinner ala 1977



with students at Goddard High School and Roswell High School.

Thomas described life is "a very tenacious thing," that could exist beyond the bounds of Earth. But he said he very much doubts that space beings ever visited Roswell, as some assert happened in the late 1940s. Tourist attractions in Roswell have since capitalized on the UFO talk.

The high schoolers asked 11 questions during the approximately 10-minute chat with Thomas, which took place via a telebridge with VK5AGR in Thomas' native Australia. Some 120 people, including fellow students, parents, teachers and the news media, were on hand for the occasion.

Mir-school contacts resumed earlier this year after a one-year hiatus. They are being arranged through the SAREX program, a joint effort of NASA, the ARRL, and AMSAT, in cooperation with the Russian space program. Other April contacts were set with schools in New Jersey, Connecticut, and Massachusetts.

The ARRL Letter, 4/9/98

Vanity fee could drop drastically

The fee to obtain an Amateur Radio vanity call sign would drop drastically under the FCC's proposed fiscal year 1998 fee schedule. If adopted, the new fee will be \$12.90 for the ten-year term, payable at the time of application for a new, renewal, or reinstated license.

The new fee is contained in an FCC Notice of Proposed Rulemaking, MD Docket 98-36, Assessment and Collection of Regulatory Fees for Fiscal Year 1998, released March 25.

The current vanity call sign fee is \$50 for the ten-year term. The FCC says it has no plans to refund the difference between the current fee and the new fee for applicants who submit applications before implementation of the FY 1998 fee schedule.

The FCC has calculated the new fee based on an expected 10,000 applicants during FY 1998. The FCC says it will announce the effective date for the new fee either in the Report and Order that terminates the fee schedule rulemaking proposal or by a public notice.

The ARRL Letter, 4/3/98

No more Amateur Radio from circus train

A letter from a Circus World Museum official says there will be no more Amateur Radio operation on the Great Circus Train.

Jim Romelfanger, K9ZZ

ARRL asks FCC to support voluntary band plans

Following up on action taken at the January ARRL Board of Directors' meeting, the League has formally asked the FCC to equate observance of voluntary band plans with "good amateur practice." In a request for a declaratory ruling filed April 3, the League asks the FCC to affirm that amateur operation that conflicts with established voluntary band plans and causes interference or adversely affects those operating in accordance with applicable band plans would violate FCC rules.

Specifically, the League wants the Commission to confirm that hams should be familiar with--and should abide by--voluntary band plans applicable to the bands

Please turn to page 9

Daughter of Wisconsin Rapids ham couple helps Navy keep sea lanes safe

NORFOLK, Va. - For more than 200 years, the U.S. Navy has answered the call to duty. Always ready for any challenge - anytime, anywhere - the Navy plays a vital role in protecting national interests by serving as the principal means of peacetime engagement, deterrence, and crisis response.

The Navy's unique ability to maintain forward-deployed battle groups around the globe offers stability in an unstable world. But this would not be possible without dedicated Sailors like Sara Santoski (KB9LGF), daughter of Gene (K9-UTQ) and Janet (WD9IMV) Santoski of Wisconsin Rapids.

The chance for a world-class education and the opportunity to be a part of a first-class organization were two of the many reasons Santoski joined the Navy. "The discipline, structure, and the possibility for some unique experiences were attractive to me. I visited the U.S. Naval Academy when I was in the seventh grade. I was impressed with the tradition and pride that came with the school. I decided then that I wanted to be a part of it," said the 24-year-old lieutenant junior grade.

Today, Santoski is serving with Helicopter Mine Countermeasures Squadron Fourteen (HM-14), making a significant contribution to the Navy's continuing mission.

An integrated squadron combining both active duty and reserve personnel and equipment, HM-14 maintains a 72-hour rapid deployment Airborne Mine Countermeasures (AMCM) contingency to combat the sea mine threat worldwide. Using a variety of unique minehunting and minesweeping systems, the squadron has the ability to both detect and prosecute mines. These systems are towed behind the helicopter through the water to allow trained personnel to either locate or detonate the mines.

In addition to her job as a pilot, Santoski has many additional responsibilities at the unit. "My main job is flying the MH-53E Sea Dragon. I fly two or three times a week. I also serve as the public affairs officer and the administrative division officer. It's tough to balance my responsibilities in the air with my jobs on the ground."

A 1991 graduate of Lincoln High School and 1995 graduate of the Naval Academy with a bachelor's degree in oceanography, Santoski continues to learn in the Navy. "I've learned how to manage people, time, handle pressure, and delegate authority. I've also learned the importance of a positive attitude and a good sense of humor."

Santoski joined the Navy in 1991, and is considering making it her career. "I plan to stay in the Navy as long as it's fun. I really enjoy the flying. So far, I've flown past Mount Rushmore and Pike's Peak, over the Grand Tetons and Yellowstone Park, and to Key West, Fla. When I do leave the Navy, I plan to settle down somewhere out West."

Regardless of her future, Santoski will always be able to look back on her time in the Navy with fond memories and the knowledge that her time was valuable and appreciated.

Story and photo by U.S. Navy via Gene Santoski, K9UTQski



Sara Santoski, KB9LGF

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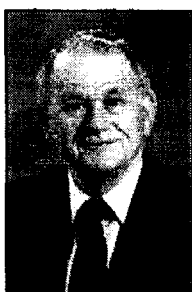
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MAY 1998

The Computer Corner

By Stan Kaplan, WB9RQR • 105 Martin Drive
Port Washington, WI 53074-9654
(414) 284-9346
WB9RQR @ N9PBY.EN63BI.WI.USA.NA
SKAPLAN @ MCW.EDU



No. 54: The Numbers Game

Last month was a hardware topic - cleaning up your power supply. Sort of a practical-type topic. This month I will get more academic, but it should lead to some understanding where there was confusion before. At least it will show you why the confusion cannot really be resolved!

You just bought a new 1.2 GB (gigabyte) hard drive, installed it, and it works fine. However, you notice from time to time that your CMOS, or one program or another, reports that you have a 1222.6 MB (megabyte) disk. What gives? Where did the extra 22.6 MB come from? On the other hand, when you run the DOS program CHKDSK, it reports 1281.9 MB for the same drive. Why are they not all exactly the same?

Basically, the answer stems from two facts. First, the math used in the computer world uses somewhat different rules than those used in everyday math. Second, the hard drive manufacturers themselves don't know!

You and I expect that the prefix kilo means that there are 1,000 of something. The ship's captain who says his ship carries 14 kilotons of cargo is saying that the cargo weighs 14,000 tons. A kilovolt is 1,000 volts.

In the language and math of computers, however, kilo means 2^{10} , the 2 standing for the binary system. Try it on your calculator. Multiply $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$, or two multiplied by itself ten times. The answer is exactly 1,024. In the computer world, then, a kilobyte is exactly 1,024 bytes. Half a kilobyte is 512 bytes; the smallest "chunk" of data that can be written to a hard drive at one time in the MS-DOS operating system. A quarter of a kilobyte is 256 bytes.

As an aside, the correct abbreviation for a kilobyte in the computer world is KB, the uppercase K meaning 1,024. In the rest of the world, a lowercase k is used, meaning 1,000. Therefore, one writes 3150 kHz to describe a frequency, but 40 KB to describe the size of a computer file. Confusing? You bet. I will try to always use the correct abbreviations in future columns.

Here is an accurate and fairly extensive definition of terms used in the world of computers. Notice that you can jump a power of ten as you go up by squaring the original number.

UNIT and ABBREVIATION		COMPUTER WORLD DEFINITION	
1 byte	(B)	8 bits	(bit stands for binary digit)
1 kilobyte	(KB, 2^{10} bytes)		1,024 bytes
1 megabyte	(MB, 2^{20} bytes)	(1 KB ²)	1,048,576 bytes
1 gigabyte	(GB, 2^{30} bytes)	(1 MB ²)	1,073,741,824 bytes
1 terabyte	(TB, 2^{40} bytes)	(1 GB ²)	1,099,511,627,776 bytes
1 petabyte	(PB, 2^{50} bytes)	(1 TB ²)	1,125,899,906,842,624 bytes

Well now, suppose you are a hard drive manufacturer and you make a drive that will hold exactly 40 million (40,000,000) bytes after it is formatted and ready for use. Can you call it a 40 MB drive? No, not in computer world math. To call it a 40 MB drive, it would have to hold 41,943,040 bytes, or about 5% more than it actually does. A few years back, some (but not all) hard drive manufacturers decided not to use computer-style math to describe their devices (even though those devices do go in computers). That gave them an edge. Their drives appeared to be about 5% larger than they really were by using kb instead of KB. This is a bit like advertising an item for \$9.95 instead of \$10. A small deception, but a deception. For a while there, the deception was even bigger. Before very recently, many manufacturers were describing their drives using unformatted capacity, which made them appear much larger still.

When I ordered my computer from Computer Research and Applications (see No. 25 in this series, late 1995), I specified a 1.2 GB drive. Here is what I got, as specified by the various sources of information in the table:

FCC SEQUENTIAL CALLSIGN UPDATE

The following is a list of FCC sequentially assigned call signs issued as of April 1, 1998. For more information about the sequential call sign system, see Fact Sheet PR5000 #206S (dated August 1996). See <http://www.fcc.gov/wtb/amateur/amatur.html>.

Dist	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AB0HJ	KI0MI	++	KC0DDQ
1	AA1TM	KE1JJ	++	KB1CPX
2	AB2FD	KG2NZ	++	KC2DIB
3	AA3QX	KF3BJ	++	KB3CIY
4	AF4JA	KU4QO	++	KF4WSW
5	AC5PK	KM5PU	++	KD5DUP
6	AD6EU	KQ6VD	++	KF6QGU
7	AB7XU	KK7MR	++	KD7BEJ
8	AB8CG	KI8FK	++	KC8JSY
9	AA9VV	KG9MX	++	KB9SLZ
N. Mariana Is	NH0C	AH0AY	KH0GW	WH0ABI
Guam	++	AH2DG	KH2TI	WH2ANV
Hawaii	NH7G	AH6PH	KH7JD	WH6DEN
American Sam	AH8P	AH8AH	KH8DL	WH8ABF
Alaska	AL0J	AL7RC	KL0OA	WL7CUS
Virgin Islands	++	KP2CN	NP2KA	WP2AIJ
Puerto Rico	NP3V	KP3BF	NP3VG	WP4NNQ

++ All call signs in this group have been issued in this district.

The ARRL Letter, 4/9/98

SOURCE	SIZE REPORTED BY THE SOURCE	* BYTES	ERROR (bytes)	ERROR (%)
MS-DOS 7's CHKDSK.EXE	1,394,786,304 bytes	1,394,786,304	** none	** none
Vendor who sold me the drive	1.2 GB	1,288,490,189	106,296,115	8%
Drive manufacturer (Samsung) ***	1.2 GB	1,288,490,189	106,296,115	8%
Drive manufacturer (Samsung) ***	1208.5 MB	1,267,204,096	127,582,208	9%
SYSCHK.EXE (utility)	1330.2 MB	1,392,815,795	29,491	> 1%
CMOS	1179.3 MB	1,236,585,677	158,200,628	11%
MS-DOS 7 (DIR)	1207.6 MB	1,266,260,378	128,525,926	9%
Norton Utilities V2 for Win95	1.5 GB	1,610,612,736	215,826,432	15%
Windows 95	1.5 GB	1,610,612,736	215,826,432	15%

* Calculated by WB9RQR (using the calculator that comes with Windows 95).

** The error values shown assume that CHKDSK's value (1,394,786,304 bytes) is correct.

*** Both values (1.2 GB and 1208.5 MB) were reported in the manual that came with the drive.

What a mess! Assuming CHKDSK.EXE is correct, the other values range from 9 to 15% off! Only the SYSCHK.EXE utility comes close, with an error of much less than 1%.

Which value is really correct? I haven't got the foggiest idea. To tell the truth, I don't even know how to find out! Moreover, the Samsung Corporation itself doesn't know the true value. Their numbers are only approximations because of a number of factors, outlined below. However, it doesn't foster too much confidence when they report about a 21-MB difference for the same model drive within the pages of the same drive manual.

When I gave this article to KB9QQE, Jeff, to read for errors and to generally keep me honest, he rightly pointed out that hard drive manufacturers have a lot of unknown variables to work with. The only completely accurate number they can truthfully report is the unformatted size based upon the controller they used during manufacture. Formatted capacity depends on (as Jeff calls it) "techie stuff" such as block size and File Allocation Table (FAT) size. Another factor is landing on an even number of blocks at the end of the disk (anything left over after the last even-numbered block is ignored and lost to the user). This factor, in turn, depends on the number of cylinders and heads. Still another is the number of bad spots on the disk, usually locked out by the manufacturer when the drive is tested after assembly. Moreover, many of these factors vary from operating system to operating system even for the same drive, and so the manufacturer cannot really come up with the exact capacity that the end user will end up with.

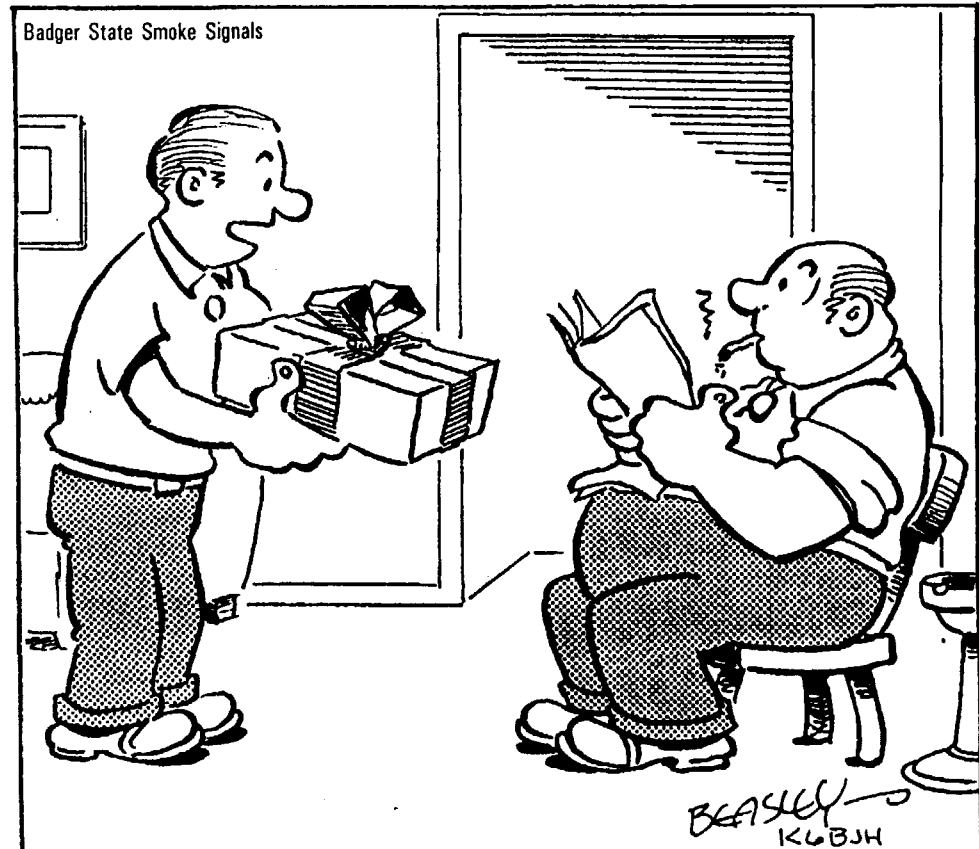
I suppose the exact capacity of the drive really doesn't matter. After all, when working with numbers as large as my drive listed above, a 1% error is a mind-boggling 14 megabytes! Remember back when 14 MB was 70% of your hard drive space? It was not many years ago. We've come a long, long way since then in drive capacity. Furthermore, you can now purchase a 1.2 GB drive for around \$100. That works out to a buck for 12 MB, or about 8.3¢ per meg!

So what this leads to, as correctly pointed out by Jeff, is that different applications can read the disk in different ways. Some will read the true capacity while ignoring the formatting, while others will report what DOS reports to it. Even others may have their own way of calculating capacity based on what they see as the number of heads * cylinders * blocks.

Well, those are some of the details. In summary, keep in mind when trying to justify and conceptualize numbers in the world of computers, that there are two general pitfalls or potential sources of error. The first, already mentioned, is that the math of computers is somewhat different than everyday arithmetic. The second is that the numbers we encounter today are so large that we can no longer think in terms of exact figures. Rather, we are forced to generalize, and conceptualize using "ballpark" estimates. For some of us, this represents a new way of thinking about numbers. Those of us who are most comfortable with exact numbers feel a bit uneasy when we are forced to accept an approximation, but that is the nature of a world in which we must consider astronomical quantities!

My thanks to KB9QQE for his efforts at keeping me honest and on-track. Happy computing!

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Wisconsin Repeater Directory



Courtesy of the Wisconsin Association of Repeaters

The WISCONSIN ASSOCIATION OF REPEATERS is an organization of trustees and representatives of repeaters, state-wide, whose goal is mutual cooperation on the VHF UHF spectrum, in the voluntary spirit of Amateur Radio.

GENERAL FREQUENCY COORDINATION POLICIES

1. We attempt to place no two repeaters on the same pair closer than 90 miles on two meters, 70 miles on 222 MHz, and 60 miles on 440 MHz. and up.
2. We attempt to place no repeater on a 15 kHz split pair closer than 40 miles to any adjacent 30 kHz standard spacing machine.
3. We not only assist proposed repeaters in finding a frequency where possible, but we actively attempt to protect coordinated repeaters' frequencies from interference whenever possible.
4. W.A.R. has suggested band plans for most of the FM spectrum, a subaudible tone plan for the State of Wisconsin and all necessary information for coordination of new or modifications to existing repeaters. Contact the Frequency Coordinator: Dan Bolander, WB9TYT, Wisconsin Association of Repeaters, 6925 W. Sheridan Avenue, Milwaukee, WI 53218.

O Carrier Access
T Touchtone
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E Emergency Power
P Portable
Z Autopatch to Law Enforcement

PL Sub-Audible Continuous Tone
C Closed Private Repeater
(CA) Closed Private Autopatch
L Link and/or Crossband
R RACES Affiliated
X Wide Area Coverage

WISCONSIN SUB-AUDIBLE TONE PLAN BY REGION

North Central - 2A, 114.8 Hz
North West - 2Z, 110.9 Hz
South East - 3A, 127.3 Hz

North East - 1B, 107.2 Hz
South Central - 3Z, 123.0 Hz
South West - 3B, 131.8 Hz.

STANDARD INPUTS UNLESS OTHERWISE NOTED

-1.700 MHz. for 6 Meters
-600 KHz. below 147.00 MHz, +600 KHz. to 148.00 MHz. for 2 Meters
-1.6 MHz. for 220 MHz, and + 5 MHz. for 440 MHz.
421.25 MHz TV Video + 18 MHz. 425.75 MHz TV Aural, + 9 MHz

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
ADAMS	NC	145.290	KB9JYT	O CA E Z WX TT	ACARC			08/20/97
ALLENTON	SE	442.350	N9GMT	O PL114.8 A EZ L X	FM3B			09/29/97
ANTIGO	NC	53.050	N9QMP	O	N9QMP			09/23/97
ANTIGO	NC	145.310	KD9HH	O A E Z	* KD9HH			04/04/98
APPLETON	NE	145.150	WD9FLJ	O PL107.2 CA EZAR	* O CO REDX			04/04/98
APPLETON	NE	145.330	W9RIC	O PL100.0	* F V VHF A			02/14/98
APPLETON	NE	146.655	KB9ENO	O PL107.2 AEDSLWXRA	ECR LTD			05/09/97
APPLETON	NE	146.760	K9QAO	O PL100.0 DS EX RA	* F V VHF A			03/31/98
APPLETON	NE	147.195	N9PAO	O PL107.2 L	N.X.C.			06/20/97
APPLETON	NE	442.125	W9RIC	O PL100.0 CA L	* W9RIC			02/14/98
APPLETON	NE	443.650	W9IEI	O R	* F V VHF			03/31/98
ASHLAND	NW	52.950	KB9AMY	O CA E L X Z R	KB9AMY			05/09/97
ASHLAND	NW	145.350	KB9AMY	O CA E L X Z R	KB9AMY			05/09/97
ASHLAND	NW	442.350	KB9AMY	O CA E L X Z R	KB9AMY			05/09/97
ASHWAUBENON	NE	146.835	KB9DSV	O PL107.2	KB9DSV			05/09/97
ASHWAUBENON	NE	223.940	KB9DSV	O	KB9DSV			05/09/97
BALDWIN	NW	146.685	WB0OND	O E L X R A	SARCASM			09/15/96
BALSAM LAKE	NW	147.195	N9QFW	O PL110.9	N9QFW			06/06/96
BALSAM LAKE	NW	224.900	N9QFW	O PL110.9	N9QFW			06/06/96
BALSAM LAKE	NW	443.900	N9QFW	O PL110.9	N9QFW			06/06/96
BARABOO	SC	145.310	N9KXX	O PL123.0	N9KXX			07/11/97
BARABOO	SC	146.880	WR9ABE	O PL123.0 DS E XWX	C.W.R.A.			10/08/97
BARABOO	SC	147.315	N9QIP	C PL100.0 E X WIN	N9QIP/WIN			05/07/97
BARABOO	SC	224.660	KE9KX	O TT-200 IF QRM	KE9KX			01/23/96
BARABOO	SC	442.950	KE9KX	O PL123.0 E X	DRAKE R.C			01/23/96
BARABOO	SC	443.900	N9QIP	O PL100.0 E X L	W.I.N.			05/07/97
BAYFIELD	NW	146.610	W9BCY	O CA	NLAND ARC			05/30/96
BELDENVILLE	NW	147.225	WB0WOT	O PL110.9 A E L	B.A.T.S.			06/10/96
BELDENVILLE	NW	224.840	WB0WOT	O PL110.9 A E L	B.A.T.S.			06/10/96
BELDENVILLE	NW	443.225	WB0WOT	O PL110.9 A E L	B.A.T.S.			06/10/96
BELOIT	SC	146.670	WA9JTX	O PL123.0 E R #77	BELOIT AR			04/07/97
BELOIT	SC	224.300	N9BUL	O TT	* C.B.S. RG			04/02/98
BERLIN	SC	145.210	N9PAA	O PL123.0 X	N9PAA			05/09/97
BERLIN	SC	443.850	N9AOZ	O PL123.0 A E X	N9AOZ			04/08/97
BIG FLATS	SE	146.625	N9WYQ	O PL114.8 E	N9WYQ			05/20/97
BLACK RIVER FALLS	NE	443.600	N9JCX	O DS E PT-TM	N9JCX			04/29/97
BLUFF SIDING	SW	146.835	WB0BDI	O	WINON ARC			04/06/97
BLUFF SIDING	NW	1253.250	W5TWR	O ATV RPT	* WARC			03/05/98
BURLINGTON	SE	442.125	N9RNA	O SNP PL114.8	N9RNA			05/25/97
CALEDONIA	SE	442.500	WA9KVE	O	WA9KVE			03/18/96
CAMERON	NW	443.650	N9KOR	O PL110.9 E	N9KOR			05/22/96
CARLSVILLE	NE	146.730	W9A1Q	O PL107.2	* DOOR CO			04/02/98
CEDARBURG	SE	146.970	W9CQO	O PL127.3 CA E X Z	* O.R.C.			05/07/97
CEDARBURG	SE	442.100	KA9QLP	O PL127.3	* CDF/WERA			04/02/98
CEDARBURG	SE	443.750	WA9POV	O PL114.8	WA9POV			06/02/97
CHIPPEWA FALLS	NW	146.880	WA9PAM	O	WA9PAM			04/12/97
CHIPPEWA FALLS	NW	147.375	WD9HFT	O PL110.9 CA DS EX	WD9HFT			04/06/97
CHIPPEWA FALLS	NW	442.300	WD9HFT	O PL110.9 DS E	WD9HFT			04/06/97
CHIPPEWA FALLS	NW	444.000	WD9HFT	O PL110.9	WD9HFT			12/14/97
CHIPPEWA FALLS	NW	444.350	WA9PAM	O	WA9PAM			08/23/97
CLEVELAND	NE	444.175	KF9SJ	O PL107.2 CA ELWXA	KF9SJ			06/09/97
COLFAX	NW	444.350	N9ISN	O	N9ISN			06/09/97
CRIVITZ	NE	145.470	K9ARF	O PL107.2 TT	ATHELSTAN			04/06/97
CUDAHY	SE	224.900	NK9G	O A TT L Z	NK9G			10/29/97
CUDAHY	SE	443.950	AA9JR	O PL127.3	AA9JR			03/07/97
DELAFIELD	SE	146.820	KE9QP	O PL127.3 CA EX Z	SEWFARS			10/29/97
DELAFIELD	SE	444.125	KE9QP	O PL114.8 AEZ CA	SEWFARS			10/29/97
EAGLE RIVER	NC	52.850	N9KXS	O	* N9KXS			01/29/98
EAGLE RIVER	NC	145.390	KD9PT	O CA DS E Z	KD9PT			05/09/97
EAGLE RIVER	NC	444.400	KA9UCE	O PL114.8 AEZ AR	E.S.R.G.			01/01/96
EAU CLAIRE	NW	146.910	K9UXP	O PL110.9 A E X	E C ARC			04/06/97
EAU CLAIRE	NW	147.240	W9JR	O PL110.9 A E	E C ARC			04/06/97
EAU CLAIRE	NW	223.820	N9RSU	O PL67.0 TT A 911	* N9RSU			04/04/98
EAU CLAIRE	NW	443.300	KB9R	O PL110.9 E	* KB9R			04/02/98
ELKHORN	SE	146.865	KB9LBR	O CAE	* LAARC			04/02/98
FITCHBURG	SC	444.000	KA9VDU	O PL114.8 L X WX	BURG			05/09/97
FOND DU LAC	NE	145.430	K9IA	O PL107.2	Fdl ARA			04/06/97
FOND DU LAC	NE	147.090	WD9ESH	O PL107.2	Fdl. RPT			03/01/98
FOND DU LAC	NE	223.900	WA4COY	O PL107.2 CA EXW	* FDL RA			04/02/98
FOND DU LAC	NE	444.150	WA4COY	O PL107.2 WX	WA4COY			05/09/97
FORT ATKINSON	SC	53.090	AA9AD	O PL103.5 LXWX RA	S.W.R.G.			03/29/96
FORT ATKINSON	SC	145.490	WB9EMR	O A TT E L A WX Z	TCARC			10/29/97
FORT ATKINSON	SC	224.420	N9DIT	O PL123.0 A TTZELR	FT AT RG			10/29/97
FORT ATKINSON	SC	442.300	N9QIP	C PL100.0 E L X	W.I.N.			05/07/97
FORT ATKINSON	SC	442.750	N9DIT	O PL123.0 ATTCLRWX	FT AT RG			10/29/97
FRANKSVILLE	SE	223.800	KC9NG	O PL127.3	KC9NG			04/06/97
GALESVILLE	SW	442.500	N9QIP	O PL100.0 TT X R L	N9QIP			08/15/97
GENOA CITY	SE	443.925	K9XN	O PL114.8 X	* LAKARS			03/05/98
GERMANTOWN	SE	224.180	W9CQO	O E	O.R.C.			05/07/97
GERMANTOWN	SE	444.525	WD9IEV	O PL114.8	* WD9IEV			04/02/98
GILLINGHAM	SC	147.120	K0DB	O	K0DB			03/24/97
GRANTON	NC	146.775	N9RRF	O WX	N9RRF			05/09/97
GREEN BAY	NE	147.075	N9PAY	O PL107.2	AHSTC			05/09/97
GREEN BAY	NE	147.120	K9GB	O PL107.2 CADSEXZ	* G B M&K			04/02/98
GREEN BAY	NE	147.270	KE9PW	O PL107.2	NEWRL			04/06/97
GREEN BAY	NE	147.360	K9EAM	O A E WX A	* G B M&K			04/02/98
GREEN BAY	NE	224.140	W9HAM	O PL107.2 A E L Z	RAACTV			04/06/97
GREEN BAY	NE	443.500	KB9AMM	O CA E	TEARUG			04/06/97
GREEN BAY	NE	443.750	N91IE	O	RRU			09/09/97
GREEN BAY	NE	444.200	WB9VJV	C	WB9VJV			10/29/97
GREEN BAY	NE	444.775	K9EAM	O CA E Z X	* G B M&K			04/02/98
GREEN LAKE	SC	146.955	KB9WC	O	G FOX ARC			04/06/97

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
GREEN LAKE	SC	444.400	KB9WC	O E X A WX			G FOX ARC	04/06/97
GREENDALE	SE	1282.500	KD9Y	O			KD9Y	06/10/96
GREENWOOD	NC	145.490	W9FPE	O E			W9FPE	05/09/97
HALES CORNERS	SE	145.170	W9FK	O A Z			WARAC	12/01/96
HALES CORNERS	SE	427.250	N9BMH	O ATV RPT			N9BMH	08/20/97
HARTFORD	SE	147.285	K9MLD	O PL127.3 E			K9MLD	05/14/97
HAYWARD	NW	147.255	W9NNS	O PL110.9 A E Z LX			NVWA	08/20/97
HAYWARD	NW	444.850	N9EGE	O PL110.9		*	N9EGE	04/02/98
HILBERT	NE	53.170	KN9P	O		*	CARES	04/04/98
HILBERT	NE	146.895	N9OBG	O PL146.2/151.4			N9OBG	01/22/96
HIXTON	SW	146.940	KC9YE	O X A			T-J RA	05/07/97
HOLCOMBE	NW	52.810	N9LIE	O PL110.9 E X			N9LIE	05/07/97
HOLCOMBE	NW	145.470	N9LIE	O PL110.9 E L X			N9LIE	05/07/97
HOLCOMBE	NW	147.345	N9QWH	O PL136.5 L			N9QWH	08/20/97
HOLCOMBE	NW	444.525	N9LIE	O PL110.9 E L X			N9LIE	05/07/97
HOLLANDALE	SC	146.655	KB9AKM	O PL123.0			HVARC	04/07/97
HOLLANDALE	SC	444.550	N9QIP	C PL100.0 E X L			N9QIP/WIN	05/07/97
HUDSON	NW	145.130	W9AVX	O CA R E		*	SCC RACES	04/02/98
HUDSON	NW	146.955	KOLAV	O TTON787 TTOFF1787			KOLAV	04/06/97
IOLA	NC	444.650	N9NOI	O PL114.8		*	N9NOI	04/02/98
IRMA	NC	146.730	K9GTQ	O			K9GTQ	05/09/97
IRMA	NC	146.970	KC9NW	O CA L			KC9NW	05/14/97
JANESVILLE	SC	53.190	KF9RU	O PL123.0 E			KF9RU	05/20/97
JANESVILLE	SC	145.450	WD9ACY	O			R.A.T.S.	05/09/97
JANESVILLE	SC	147.075	K9FRY	O PL123.0		*	K9FRY	04/02/98
JANESVILLE	SC	916.000	N9HF	O FM VIDEO			N9HF	03/07/97
JUNEAU	SC	146.640	WB9ADB	O PL123.0 AELWXZAR			ROCK R RC	05/30/97
KAUKAUNA	NE	444.450	ND9Z	O PL107.2 CA TT		*	ND9Z	04/04/98
KENOSHA	SE	224.800	K9RI	O PL114.8		*	K.A.R.S.	04/04/98
KENOSHA	SE	442.000	W9UDU	O PL127.3		*	LAKESHORE	02/17/98
KENOSHA	SE	442.200	N9OIG	O PL114.8 DS L X			N9OIG	05/20/97
KEWAUNEE	NE	146.805	WB9RJB	O PL107.2			WB9RJB	02/07/97
LA CROSSE	SW	146.700	WA9HCZ	O RTTY 2125MARK		*	WA9HCZ	04/02/98
LA CROSSE	SW	146.760	K9CUT	O			LaCrossRA	10/29/97
LA CROSSE	SW	146.970	K0JYB	O A E X Z WX RA		*	RVRLNDARC	04/02/98
LA CROSSE	SW	147.090	N9ETD	O			N9ETD	04/06/97
LA CROSSE	SW	444.600	WA9HCZ	O		*	ONA ARC	04/02/98
LA VALLE	SC	442.400	W9EBF	O PL123.0 E P			W9EBF	04/06/97
LAC DU FLAMBEAU	NC	146.670	N9AFN	O PL107.2		*	N9AFN	04/04/98
LAC DU FLAMBEAU	NC	146.700	W9BTN	O		*	W9BTN	04/04/98
LACROSSE	SW	444.475	W9LZQ	O A A/A Z		*	RARC	04/02/98
LODI	SC	147.225	K9EYJ	O PL123.0		*	K9EYJ	04/02/98
LOHRVILLE	SC	145.270	KB9JJB	O PL123.0		*	KB9JJB	04/02/98
LUXEMBURG	NE	443.700	KA9BLI	O PL107.2 E		*	KA9BLI	04/02/97
MADISON	SC	53.070	N9KAN	O PL103.5 CA ELZRA			S.W.R.G.	03/29/96
MADISON	SC	145.150	N9EJC	O PL123.0		*	N9EJC	04/02/98
MADISON	SC	146.685	W9YT	O PL107.2 E			UW BARS	04/02/98
MADISON	SC	146.760	W9HSY	O PL123.0 CA DSEXZ		*	M A R A	04/27/98
MADISON	SC	146.940	N9KAN	O PL123.0 DS A			C W R A	10/08/97
MADISON	SC	147.150	W9HSY	O PL123.0 CA DSEXZ		*	M A R A	04/02/98
MADISON	SC	224.160	WB9RSQ	O PL123.0 A E L Z			WB9RSQ	05/30/97
MADISON	SC	443.400	N9KAN	O PL123.0 CA ELXZA			S.W.R.G.	03/29/96
MADISON	SC	444.500	WB9TAE	O PL123.0 CA DS EL			WB9TAE	06/10/96
MADISON	SC	444.775	NG9V	O PL114.8 DS WX DX			NG9V	10/08/97
MADISON	SC	444.925	WB9TAE	O PL123.0 CA DS EL			WB9TAE	06/10/96
MANITOWOC	NE	145.190	WB9MFB	O PL107.2 E RA		*	WB9MFB	04/04/98
MANITOWOC	NE	146.610	W9DK	O PL107.2CA EZRAWX		*	MANCORAD	04/02/98
MANITOWOC	NE	147.030	N9GHE	O PL110.9 A Z R		*	N9GHE	04/02/98
MANITOWOC	NE	224.540	N9GHE	O R		*	N9GHE	04/02/98
MANITOWOC	NE	443.975	N9GHE	O A R		*	N9GHE	04/02/98
MARSHFIELD	NC	147.180	AA9BN	O A E Z L444.975			MAARS	01/14/96
MARSHFIELD	NC	444.975	AA9BN	O E L147.18			MAARS	01/14/96
MAUSTON	NC	146.850	N9FVP	O		*	ARC OF CW	04/02/98
MEDFORD	NC	147.150	KB9OBX	O A E WX			TAYLOR	04/06/97
MENOMONEE FALLS	SE	444.425	KA9FIN	O			SHRINE	03/18/96
MENOMONIE	NW	146.610	K9KGB	O A E L X Z A			R CDR RA	04/07/97
MENOMONIE	NW	146.805	N9HNI	O CA 911 #DOWN			N9HNI	03/09/97
MEQUON	SE	53.010	N9PMR	O PL103.5		*	N9PMR	04/02/98
MEQUON	SE	224.060	N9PMR	O		*	N9PMR	02/03/98
MEQUON	SE	443.325	N9PMR	O PL127.3		*	N9PMR	02/03/98
METEOR HILL	NW	53.150	N9QWH	O USE -1 MHZ NOW			N9QWH	08/20/97
MILTON	SC	146.715	K9RIJ	O A TT E			K9RIJ	04/06/97
MILTON	SC	443.175	K9RIJ	O A E			K9RIJ	04/04/97
MILWAUKEE	SE	29.680	N9BBG	O PL127.3			W.E.R.A.	10/29/97
MILWAUKEE	SE	52.830	WN9HGB	O PL173.8			WN9HGB	07/08/97
MILWAUKEE	SE	53.030	WB9TRO	O PL103.5 E L		*	WEAR	04/02/98
MILWAUKEE	SE	145.130	N9LKH	O PL127.3 A E L Z			MAARS	07/09/97
MILWAUKEE	SE	145.230	N9BMH	O PL127.3 TT			N9BMH	05/30/97
MILWAUKEE	SE	145.250	KA9WXN	O PL127.3 DS			UW-M ARC	10/15/96
MILWAUKEE	SE	145.390	WB0AFB	O PL127.3 DS		*	MATC RC	04/02/98
MILWAUKEE	SE	146.670	W9WK	O PL127.3 AEXZRWX			ARES	01/01/96
MILWAUKEE	SE	146.790	W9HHX	O PL127.3 A CA DS			MSOE ARC	05/09/97
MILWAUKEE	SE	146.850	W9KHO	O PL127.3		*	MICORS	04/02/98
MILWAUKEE	SE	146.910	K9IZV	O PL127.3 DSEXZAWX			MKE RPTR	09/13/97
MILWAUKEE	SE	147.000	W9PY	O PL146.2 A X		*	PHANTOM	04/04/98
MILWAUKEE	SE	147.105	K9IFF	C CA E TT			K9IFF	04/06/97
MILWAUKEE	SE	147.165	WB9SDD	O PL127.3 E		*	WB9SDD	04/02/98
MILWAUKEE	SE	147.210	W9DD	O PL127.3			M.U. RAMS	04/07/97
MILWAUKEE	SE	224.960	WD9EUF	O PL114.8 A Z			WD9EUF	04/29/97
MILWAUKEE	SE	442.650	N9VBK	O PL114.8			N9VBK	04/07/97
MILWAUKEE	SE	443.050	N9OSK	O PL100.0 CA DS WX			N9OSK	07/10/97
MILWAUKEE	SE	443.150	W9KHO	O PL114.8		*	MICORS	02/17/98

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
MILWAUKEE	SE	443.300	KG9CS	O PL114.8			KG9CS	02/08/97
MILWAUKEE	SE	443.550	N9LKH	O PL127.3 A X L Z			N9LKH	05/20/97
MILWAUKEE	SE	443.800	N9GMT	O PL114.8 OAEZXL			FM38	09/29/97
MILWAUKEE	SE	444.200	K9HXA	C PL114.8 CA L		*	K9HXA	04/02/98
MILWAUKEE	SE	444.300	W9WK	O PL114.8 L Z AR			ARES	01/01/96
MILWAUKEE	SE	444.325	N9CFG	C PL127.3		*	W.E.R.A.	04/04/98
MILWAUKEE	SE	444.450	KA9QMD	O PL114.8 A			KA9QMD	03/10/97
MILWAUKEE	SE	444.800	K9HXA	C		*	K9HXA	04/02/98
MILWAUKEE	SE	444.850	WB9TRO	C E CA PL L X		*	WER	04/02/98
MILWAUKEE	SE	444.875	WB9TRO	O PL127.3 E		*	W.E.R.A.	04/02/98
MILWAUKEE	SE	444.925	N9NGI	O PL127.3 CA E Z			N9NGI	05/20/97
MONROE	SC	145.110	NR9W	O PL114.8		*	G C ARA	04/02/98
MOUNT STERLING	SW	147.360	W9DMH	O E X WX		*	W9DMH	04/02/98
NECEDAH	SE	444.125	K9UJH	O PL123.0			K9UJH	10/29/97
NEW AUBURN	NW	146.745	N9LIK	O PL110.9 A E			N9LIK	05/28/97
NEW BERLIN	SE	442.400	W9EBF	O PL127.3 E			W9EBF	04/06/97
NEW HOLSTEIN	NE	147.300	K9LJU	O A E Z			C.A.R.E.S	04/06/97
NEW RICHMOND	NW	145.270	N9LIE	O PL110.9 L X			N9LIE	05/07/97
NEW RICHMOND	NW	444.675	N9LIE	O PL110.9 L X			N9LIE	03/29/96
NORTH FREEDOM	SC	443.675	KD9UU	O PL114.8 CAELXW			S.W.U.R.G.	03/29/96
OCONOMOWOC	SE	442.025	N9JUU	O PL114.8			N9JUU	10/29/97
OGDENSBURG	NC	147.165	N9NOJ	O PL103.5 E DS			N9NOJ	04/06/97
OSHKOSH	NE	147.240	KA9JAC	O CA E Z RA WX			WIN CTY E	05/10/97
OSHKOSH	NE	147.345	N9GDI	O PL107.2		*	SOLAR	04/02/98
OSHKOSH	NE	442.075	N9GDI	O PL107.2		*	SOLAR	04/02/98
OSSEO	NC	145.330	N9LIE	O PL110.9 L X			N9LIE	05/07/97
OSSEO	NC	444.200	N9LIE	O PL110.9 L X			N9LIE	03/29/96
PARK FALLS	NC	147.000	KA9EOK	O L HLCMB&HYWRD			PRICE CRA	08/20/97
PARK FALLS	NC	444.750	KA9EOK	O			PRICE CRA	08/20/97
PEPIN	NW	145.350	KB9S	O			WAB ARS	10/08/97
PEWAUKEE	SE	147.210	WB9AKC	O PL127.3 TT		*	WCTC ARC	02/17/98
PEWAUKEE	SE	443.125	WB9AKC	O PL114.8/127.3 TT		*	WCTC ARC	02/17/98
PLAIN	SC	442.100	KA9VDU	O PL114.8 L X WX			BURG	05/09/97
PLATTEVILLE	SW	145.270	KA9WBX	O A E			UWP ARC	06/17/96
PLYMOUTH	NE	147.060	WE9R	O PL107.2 E DS		*	SHEB.CO	02/17/98
PLYMOUTH	NE	444.100	KD9TZ	O PL107.2		*	S CTY 440	04/02/98
PLYMOUTH	NE	444.350	WE9R	O PL114.8 E DS L X			WER	07/05/96
PORT WASHINGTON	SE	147.330	WB9RQR	O PL127.3 CA EXZWXR			OZARES	04/02/98
PORT WASHINGTON	SE	443.525	WB9RQR	O PL114.8 CA EXZWXR			OZARES	04/02/98
POUND	NC	146.685	KA9JVH	O PL107.2 DS L			KA9JVH	06/10/96
PRAIRIE DU SAC	SC	444.250	N9KXX	O PL123.0			BSRG	10/29/97
PRAIRIE FARM	NW	147.075	K9ST	O		*	K9ST	04/04/98
RACINE	SE	147.270	W9UDU	O CA E Z TT A		*	LAKESHORE	02/17/98
RACINE	SE	444.050	KA9LOK	O			KA9LOK	02/08/97
RACINE	SE	444.950	WA9BDX	O PL114.8 E		*	WA9BDX	04/02/98
RHINELANDER	NC	145.210	KA9BHL	O CA E			NWARC	06/19/97
RHINELANDER	NC	146.940	W9ZZZ	O A E X Z WX AR		*	RHIN RP A	04/02/98
RHINELANDER	NC	147.360	KA9TCC	O 114.8 A			KA9TCC	03/10/97
RICE LAKE	NW	145.110	N9QWH	O PL110.9 AELXZWR			N9QWH	08/20/97
RICE LAKE	NW	146.715	WB9PRI	O E			WB9PRI	12/01/96
RICE LAKE	NW	147.030	WB9WFG	O PL110.9			WB9WFG	04/06/97
RICHLAND CENTER	SW	146.910	WB9SLI	O PL131.8		*	P V RP A	02/17/98
RIVER FALLS	NW	443.800	K9ZMA	O			K9ZMA	05/30/97
ROBERTS	NW	147.330	KA9YRV	O PL110.9			SCVRA	04/07/97
ROBERTS	SE	443.325	N9NGH	O PL110.9		*	N9NGH	03/05/98
ROBERTS	NW	443.325	N9NGH	O PL 110.9		*	N9NGH	03/05/98
RUBICON	SC	145.350	WB9KPG	O A Z			WB9KPG	10/29/97
SAINT FRANCIS	SE	444.825	WJ9Z	O PL127.3 A TT Z			WJ9Z	04/06/97
SAINT LAWRENCE	SE	146.730	N9LZW	O PL127.3 X		*	W.C. ARC	04/04/98
SAYNER	NC	145.130	KB9CBL	O E L145.210			NWARC	06/19/97
SHAWANO	NC	145.350	KA9NWX	O PL114.8 CA EXZAR			KA9NWX	10/29/97
SHAWANO	NC	146.865	KB9DAC	O PL114.8			KB9DAC	04/06/97
SHAWANO	NC	224.480	KG9AL	O PL114.8 E R			KG9AL	04/06/97
SHAWANO	NC	442.050	KB9DAC	O PL114.8 R WX			KB9DAC	05/20/97
SHEBOYGAN	NE	147.255	N9REH	O PL127.3 CADSEL			N9REH	05/07/97
SHEBOYGAN	SE	442.900	AC9A	O PL107.2		*	AC9A	02/17/98
SHEBOYGAN	NE	444.600	N9REH	O PL114.8 DS E			N9REH	05/09/97
SHELL LAKE	NW	147.045	N9PHS	O E AR			NORWESCO	04/06/97
SHELL LAKE	NW	442.150	N9PHS	O R WX			NORWESCO	08/15/97

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
SISTER BAY	NE	147.180	W9AIQ	O PL107.2 CA E			DC ARC	09/11/97
SLINGER	SE	443.225	WD9DHI	O PL127.3 E			WER	02/19/97
SOLON SPRINGS	NW	145.490	K9ASC	O A E Z			DC RACES	03/11/97
SOLON SPRINGS	NW	147.390	N9PHS	O			N9PHS	08/20/97
SOLON SPRINGS	NW	444.625	N9QWH	O PL110.9			N9QWH	10/04/95
SPOONER	NW	147.135	KE6WF	O		*	KE6WF	04/02/98
SPOONER	NW	444.800	KE6WF	O		*	KE6WF	04/02/98
SPOONER/HERTEL	NW	145.190	KB9OHN	C CA E Z L			BARS	04/06/97
SPOONER/HERTEL	NW	147.300	KB9OHN	O CA E Z L			BARS	04/06/97
SPOONER/HERTEL	NW	224.500	KB9OHN	O A E Z			BARS	04/06/97
SPOONER/HERTEL	NW	443.500	KB9OHN	O A E L Z			BARS	04/06/97
STEVENS POINT	NC	146.670	WB9QFW	O A E Z			CWRA LTD	04/06/97
STEVENS POINT	NC	146.985	W9NN	O A TT E Z AR			CWRA LTD	04/06/97
STEVENS POINT	NC	444.700	KC9NW	O E CA L			KC9NW	05/14/97
STURGEON BAY	NE	147.210	W9AIQ	O CA A E X Z			DC ARC	10/27/97
STURGEON BAY	NE	444.000	K9JKM	O		*	K9JKM	04/02/98
STURGEON BAY	NE	920.000	K9JKM	O		*	K9JKM	04/02/98
STURGEON BAY	NE	1282.100	K9JKM	O EXPERIMENTAL		*	K9JKM	04/02/98
SUPERIOR	NW	145.310	N9QWH	O PL 110.9 EZ			N9QWH	09/14/97
SUPERIOR	NW	146.760	W9BWK	O		*	T P A RA	03/31/98
SUPERIOR	NW	444.820	KA9VDW	O PL203.5 A DS		*	T P T G	03/31/98
SUPERIOR	NW	444.900	WA9KLM	O A E			WITC ARC	03/11/97
TIGERTON	NC	147.135	KF9TS	O X WX			KF9TS	05/14/97
TOMAH	SW	145.390	N9BOE	O PL131.8 CA EXZRA		*	N9BOE	04/04/98
TOMAH	SC	444.800	N9QIP	C PL100.0 E X L			W.I.N.	05/07/97
TOMAH	SW	444.850	KB9EBX	O PL167.9			KB9EBX	01/23/97
TOMAHAWK	NC	145.430	N9CLE	O A E Z911 X			TOM RP A	08/20/97
TOMAHAWK	NC	223.760	N9CLE	O			TOM RP A	08/20/97
TOMAHAWK	NC	444.575	N9CLE	O			N9CLE	08/20/97
TREVOR	SE	442.600	KA9VZD	O PL114.8			KA9VZD	04/07/97
UNION GROVE	SE	146.745	N9OIG	O PL127.3 E		*	N9OIG	03/05/98
UNION GROVE	SE	442.250	N9OIG	O PL114.8 X L			N9OIG	04/06/97
WABENO	NE	145.110	KF9DB	O PL107.2 E L147.2			N.E.W.R.L	05/09/97
WALES	SE	224.120	WB9DRO	O PL127.3 CA			WB9DRO	07/29/97
WAUKESHA	SE	147.900	N9KS	O PL141.3			EARS/KMRA	06/09/96
WAUPACA	NC	146.925	N9BKJ	O PL114.8 CAEXARZ		*	N9BKJ	04/02/98
WAUPACA	NC	147.390	WA9FDC	O X A R WX			WP/ACA RC	05/09/97
WAUPACA	NE	444.900	N511A	O PL114.8			N511A	05/14/97
WAUSAU	NC	52.830	N9MEA	O PL114.8 E			N9MEA	03/20/97
WAUSAU	NC	52.890	W9SM	O PL114.8			W9SM	03/20/97
WAUSAU	NC	53.450	W9BCC	O PL103.5			R.M.R.A.	05/14/97
WAUSAU	NC	146.640	W9SM	O PL114.8 AELXZ911			W.V.R.A.	08/03/97
WAUSAU	NC	146.715	KF9RU	O PL114.8			KF9RU	04/06/97
WAUSAU	NC	146.820	W9BCC	O PL114.8 CA E X L			R.M.R.A.	05/14/97
WAUSAU	NC	147.060	W9KRY	O PL171.9 CA E X			KC9NW	05/14/97
WAUSAU	NC	224.640	W9SM	O PL114.8 AELXZ911			W.V.R.A.	05/30/97
WAUSAU	NC	421.250	K9PT	O EL AM-ATV			RMATS	06/04/97
WAUSAU	NC	920.000	K9PT	O EL FM-ATV			RMATS	06/04/97
WAUSAU	NC	442.200	N9QIP	O			N9QIP	05/20/97
WAUSAU	NC	443.325	KA9SOT	C			KA9SOT	12/01/96
WAUSAU	NC	443.750	KC9NW	O PL71.9 CA X L E			KC9NW	05/14/97
WAUSAU	NC	443.950	KC9NW	O E			KC9NW	05/14/97
WAUSAU	NC	444.100	W9SM	O PL114.8 AELXZ911			W.V.R.A.	05/30/97
WAUSAU	NC	444.300	W9BCC	O PL114.8 CA E X			R.M.R.A.	05/14/97
WAUSAU	NC	906.000	W9BCC	O X			R.M.R.A.	05/14/97
WAUSAU	NC	1250.000	KB9RFT	O EL FM-ATV			RMATS	06/04/97
WEST ALLIS	SE	224.520	KA9JCP	O CA E		*	KA9JCP	04/02/98
WEST BEND	SE	223.820	N9NBN	O PL114.8 CA			N9NBN	03/03/97
WEST MILWAUKEE	SE	147.135	NY9T	O PL141.3			NY9T	04/07/97
WEYERHÄUSER	NW	145.170	KA0PZX	O E			MAGIC	06/10/96
WILLIAMS BAY	SE	443.275	K9RC	O PL127.3		*	K9RC	04/02/98
WINNECONNE	NE	224.500	KB9IE	O CA TT L X			P.G.R.A.	03/19/96
WISCONSIN RAPIDS	NC	146.790	K9UTQ	O PL114.8 CAEXZAR			MIDST RA	10/29/97
WISCONSIN RAPIDS	NC	147.330	K9PJB	O PL114.8 E		*	WI AIR RA	04/02/98

Badger State Smoke Signals · May 1998
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Ham radio bumped from circus train

A Wisconsin ham radio tradition of more than 30 years has come to an end.

Ham radio has been bumped from the annual run of the Great Circus Train. The train runs each summer between Baraboo -- where the Ringling Brothers Circus got its start in 1884 -- and Milwaukee, the site of the annual Great Circus Parade (see "Public Service," QST, Dec 1995, page 90). ARES members rode the rails to help handle communication along the route and, once in Milwaukee, at the show grounds and for the parade itself.

In a letter to Bob Goldstein, K9KJT, of the Milwaukee's ARES group, the train's sponsors, the Circus World Museum, cited "severe space limitations" on the coaches for their decision to drop ham radio in favor of an offer of free commercial digital and analog service from PrimeCo. "We are attempting to eliminate as much clutter from the train coaches as possible this year and open up more space for our passengers," the museum's letter said.

Ham radio first came aboard the circus train in 1965 when ARES member Don Evenson, K9JYX, set up a VHF station that relayed to an HF mobile station chasing the train. In 1994, onboard HF operation was added.

Wisconsin ARRL PIC Jim Romelfanger, K9ZZ -- an indefatigable circus train booster -- reports that over the past two years, hams aboard the circus train worked an average of 225 stations during the run -- and fielded some questions about the circus at the same time. He said that without ham radio, the circus events and the museum would lose a tremendous public relations benefit that cost nothing. Romelfanger says he met a lot of the state's shakers and movers over the years through his association with the train. One time, he said, Ted Mack (of radio's Amateur Hour fame), rode the train and was interviewed by Evenson.

This year, the national governor's conference is in Milwaukee in late July. The train runs the last Monday and Tuesday in July, and the parade is August 3, Romelfanger said.

Romelfanger said the museum's decision surprised and puzzled him, and he expressed disappointment that the circus train would not carry Amateur Radio this year, when Wisconsin marks its sesquicentennial. "It was a privilege to work for the museum, the train, and the parade," he said.

The ARRL Letter, 4/17/98

Alabama tornadoes bring out the best in hams

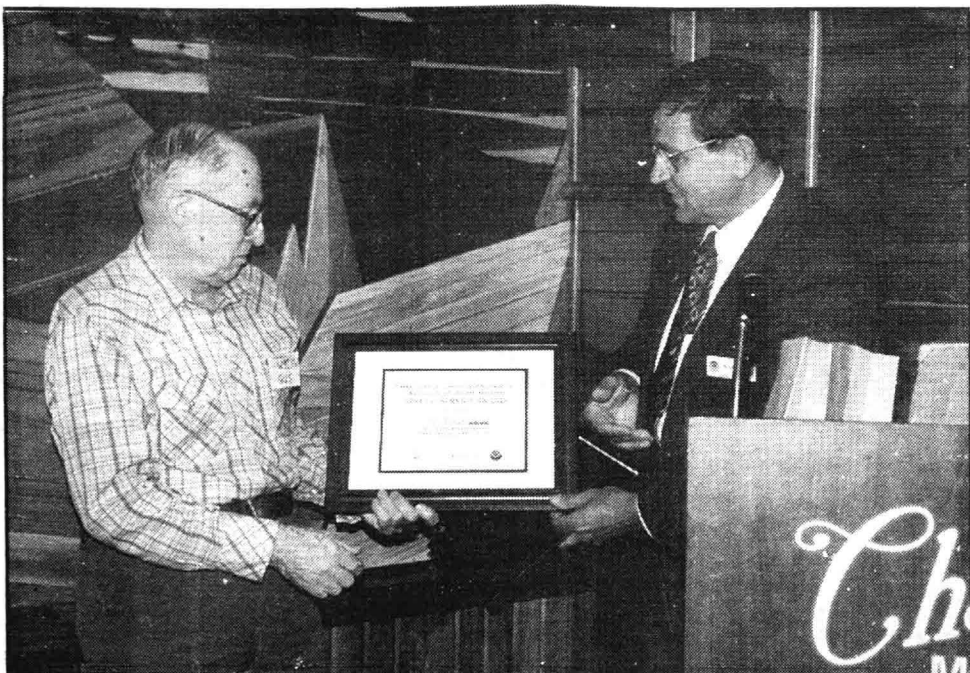
What's being described as the worst weather of its type in many years brought out the best in Alabama's ham radio community this past week. The evening of April 8, 1998, became one for the record books as tornadoes touched down in central Alabama leaving death and destruction in their wake. Upwards of three dozen people died, and many were left homeless. "To say the least, it was a long night," said Alabama Section Manager Scott Johnson, N4YYQ, of Vincent. "The hams here did a great job!"

As the severe weather approached, dozens of hams spent hours on weather-spotting nets assisting the National Weather Service in tracking the storms and relaying reports of damage, hail, injuries and relief operations. David Black, KB4-KCH, president of the Alabama Emergency Response Team (ALERT) and an ARRL PIO says hams were on the air well ahead of the actual tornadoes. As the "long night" wore on, mobile and stationary spotters on the West Alabama Emergency Net and the Alabama Emergency Net on HF checked in with weather spots, damage assessments, and injury reports. As needed, hams were assigned to assist with Red Cross shelters opened to house tornado victims. A second repeater was activated to handle damage reports. Lisa Wallace, KF4C, in Tuscaloosa, served as liaison on the unofficial net and assisted in passing traffic from the West Alabama Emergency Net to the Birmingham NWS office and the Tuscaloosa Red Cross.

ALERT members activated the well-equipped ham station at the National Weather Service office in Birmingham. As

former Alabama SM and current ARRL Alabama District 8 DEC Tom Moore, KL7Q, explains, the station has VHF/UHF capability to access remote bases for linking to various repeaters--and local SKYWARN nets--in the region. Those attempting to track the weather on the ground gathered information not only via ham radio nets but via an Internet/packet radio gateway developed by hams in Alabama. The digital Internet/packet gateway has an extensive wide-area dedicated RF node network and provides hard copy of severe weather bulletins, exchange of storm and damage reports, and keyboard-to-keyboard contact with supporting SKYWARN groups. Johnson said the keyboard-to-keyboard aspect worked especially well and helped to relieve voice traffic congestion. "The more I watched

Continued from front page



At left, Gus Bonow, W9IHW, received his award from National Weather Service Meteorologist Rudy Scharr, Data Acquisition Program Manager at the National

and has kept the net afloat when nobody else could or would Elsener said. And as for Jim, Elsener went on, "He takes weather info from stations very early in the morning when the rest of us aren't up yet.

Many stations check in long before the net officially starts at 6 a.m., 365 days a week, and it's a rarity when Jim or Gus isn't there to help out.

According to Rudy Scherr from the NWS, BWN reports are a great asset to the weather service's information-gathering ability.

There was a funny twist to the luncheon. Gus, W9IHW, never knew he was planning his own testimonial luncheon. He lives near the restaurant and was led to believe that we were having a BWN gathering just for the sake of getting together. When a large gathering of BWN participants and their spouses converged upon the restaurant, Rick, W9RCW, said "Gus is going to kill me for this." (Editor's note: We believe Rick



Weather Service at Sullivan, while the same happened at right for Jim Caldwell, WB9YPY.

Photos by Carl Plotz, WB9JSW, Oshkosh

survived.)

Elsener then went on to thank both Gus and Jim for their years of service.

When presented with his awards, Bonow said "It couldn't have happened without all of you." Caldwell, when given his awards, turned to the crowd and said "I guess I am supposed to say something now. Thanks."

When the BWN first started and until 1993, all weather reports were written on paper and given orally to the weather service.

In 1993, the BWN joined the computer age.

Net Manager Elsener says "Gus has been a great help to all of us who have had to learn computers to keep this net going. We are all grateful.

The Badger Weather net meets daily on 3.985 kHz, running until 7:15 a.m. But if you are a real earlybird, join Jim, WB9YPY any time after about 3:30 a.m. □

ARRL inaugurates arbitration service

Continued from front page

parties may determine as part of their arbitration agreement how the costs of arbitration will be allocated, but all costs will be paid by the parties involved.

Cases may be instituted under the ARRL Arbitration Service by filing a signed Arbitration Agreement--together with the \$50-per-party filing fee--with the ARRL General Counsel. For complete details on this service, contact ARRL General Counsel Christopher D. Imlay, Booth Freret, Imlay & Tepper, PC, 5101 Wisconsin Ave NW, Suite 307, Washington, DC 20016-4120; tel 202-686-9600; fax 202-686-7797.

The ARRL Letter, 4/9/98

HERE AND THERE

Continued from page 5

they operate and to state that those who don't operate in harmony with those plans are not operating "in accord with good amateur practice." The League's filing builds on a 1983 declaration by the Chief of the FCC's Private Radio Bureau that simplex operation on a recognized repeater frequency was contrary to good amateur practice.

The League argues that a declaratory ruling that provides clear support for accepted voluntary band plans would highlight the importance of band plans in the amateur community and set "a standard of cooperative behavior which is expected of licensees." It also would make it easier to resolve interference complaints without having to resort to FCC action, the petition said.

The League requests the Commission "at an early date" declare that good amateur practice "anticipates compliance with the accepted voluntary international, national, and regional band plans adopted by cooperation and coordination" within the Amateur Radio Service. A complete copy of the League's petition may be found on the ARRLWeb at

<http://www.arrl.org/announce/declreq.pdf>.

The ARRL Letter, 3/9/98

Have you considered becoming an ARRL Volunteer Examiner? If you are 18 or older, and are presently a General, Advanced, or Extra class licensee, the ARRL/VEC would be glad to hear from you. Feel free to contact the ARRL/VEC at (800) 927-7583 and request our Prospective VE Packet. Very 73 to all my friends in Wisconsin!

Bart Jahnke, W9JJ/1 • ARRL/VEC Manager



THE CENTRAL WISCONSIN RADIO AMATEURS

Presents the 21st annual

SWAPFEST AND AUCTION

Sunday, June 7, 1998

JUNCTION CITY, WI

U.S. Army Reserve Center

BIGGER AND BETTER!

- Indoor facilities are three times larger than last year
- Huge paved parking lot for the tailgaters
- Indoor dealers unload at the tables
- Saturday setup and security
- ARRL FCC exams at 9 a.m. • Food all day long

THE BIG AUCTION STARTS AT NOON, FEATURING OUR OWN COL. BRUCE WALTHER, W9QAH, AUCTIONEER!

Talkin: 146.67 (WB9QFW/R) and 146.985 (W9NN/R)

Junction City is 12 miles west of Stevens Point, Wisconsin, on U.S. 10

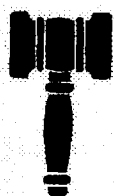
Tables: \$4.00 each IF tables are requested before May 15. After May 15, tables are \$7.00 plus admission.

Admission: \$3.00 (free for children under 12.)

A limited number of electrical hookups are available (free of charge) and are offered on a first-come, first-served basis. Doors will be open to the public at 8 a.m. (6:30 a.m. to vendors choosing Sunday morning setup), with shutdown by 1:30 p.m.

Tailgaters are encouraged to sell their unsold goods at our AUCTION at noon.

For more information, please call, write, or e-mail:
John Feltz, W9JN, 973 E. First Street, Junction City, WI 54443-9614
Phone: (715) 457-2506 • E-mail: jfw9jn@tznnet.com



PARTICIPATING CLUBS AND ORGANIZATIONS



The Racine Megacycle Club



Club Station W9UDU • Racine, WI
ARRL Affiliated
Providing Communications for American Red Cross and ARES
Mary Urban, N9ZWE, Secretary
c/o RMC • P. O. Box 3 • Racine, WI 53401-0003



MEETING MINUTES March 9, 1998

The March 9, 1998 regular membership meeting of the Racine Megacycle Club opened at 8:34 p.m. at the American Red Cross Building. President Rees Roberts, K9UUT, and Secretary Mary Urban, N9ZWE, were present.

President Rees, K9UUT, announced that a new policy has been set by the Board, regarding the minutes of the membership meetings. The minutes will be written using Roberts Rules of Order as a guideline. The minutes will be read at each meeting, approved, and then published in the *Badger Smoke Signals*. Due to this change, there will be no minutes published in the next issue.

Secretary Mary, N9ZWE, read the minutes of the February 9, 1998 meeting, as published in the March 1998 issue of the *Badger Smoke Signals*. Bob, W9EH, moved to accept the minutes as read. The motion was seconded and approved.

Treasurer Dave, AA9HL, read the treasurer's report. Bob, W9EH, moved that the treasurer's report be accepted and placed on file. The motion was seconded and approved.

President Rees, K9UUT, called for committee reports. Equipment Inventory Committee chairman Dave, AA9HL, has compiled a list of equipment that we have receipts for. These include the computer and some of the newer radios. We do not have a receipt for the Swan 500 which is missing. The location of the Scout 555, Icom 706 and antennae analyzer will need to be verified. Amateur Radio Class chair-

man Larry, WA9JMO, reported that we have 7 students in the present class. They are into week 4 of a 12 week course. He needs additional instructors. He has requested that Activities Director Pete, KB9LXM, allow him to put on a program regarding the proper procedure of setting up Amateur Radio advertising and so forth, at the April meeting.

OLD BUSINESS: Lee, N9VNU, talked about the Wisconsin QSO party. Kathy, N9ZWN, announced that the March 28 Southeastern Wisconsin Amateur Radio banquet has been cancelled.

NEW BUSINESS: Larry, WA9JMO, is requesting help for the Lutheran High School walk on May 1. John, KA9RZL, announced the National Weather Service is sponsoring a seminar March 16 at Racine Gateway Technical College. President Rees, K9UUT, gave an update on the new club web page. The Board of directors has approved a \$5.00 per month expenditure for the purchase of a club e-mail address. It is w9udu@wi.net. The board also approved the expenditure of moneys to defray the meal expenses of Lloyd, WB9-RGO, during his trip to Maryland. Pete, KB9LXM, needs help for Field Day. Mary, N9ZWE, has \$1.00 discount tickets for the DuPage Amateur Radio Club hamfest. Bob, W9EH, gave an update on ARLOW.

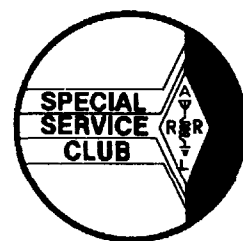
A motion was made and seconded to close the meeting at 9:09 p.m.

Prior to the meeting, a program was presented by John Leekly, WB9SMM, who is the ARRL Section Emergency Coordinator for Southeast Wisconsin and Waukesha.

Mancorad Radio Club

Mary Langer, KB9GOY,
Secretary

P.O. Box 204 • Manitowoc, WI
54221-0204



2-Meter Repeater: 146.01 Input/146.61 Output

MANCORAD MINUTES April 8, 1998

The monthly meeting of MANCORAD was called to order at 1937 by president Roger, W9NPX. We started with introductions all around.

The minutes for the March meeting were approved. The motion was made by Eric, AF9J, and seconded by Bill, K9DUX.

The treasurer's report was approved as read. The motion being made by Theresa, KB9KXF, and seconded by Eric, AF9J.

OLD BUSINESS

The sign-up sheet for the Hamfest coming up on May 9 was sent around. There are still some spots that need to be filled. A special meeting will be held on May 6 at 7:00 p.m. at the club room for all members helping with the Hamfest. This will be an informal meeting where we will go over assignments and work out any last minute problems. If you haven't signed up yet please come and see where your assistance is needed. Tickets for the raffle will be selling at \$1.00 each, 6 for \$5.00 for 13 for \$10.00. The big door prize is once again a HT.

The club is having a special event station aboard the World War II submarine, USS Cobia, on August 15. There will be 8:00 a.m. set-up and operating from 9:00 to 3:00. Eric, AF9J, and Fred, W6BSF are looking for volunteers to help operate, even if it is only 15 minutes, it gives them a break. Mark your calendars now and let Eric or Fred know when you will be available to help out.

NEW BUSINESS

It was brought up to the club that we should recognize Chuck, W9BZU, for all the things he has done for MANCORAD through the years, which are many. Also he is one of the original members of this club. A motion was made by Ron, WS9X, and seconded by Len, N9QFO, to make Chuck an honorary lifetime member.

Janice, N9IQZ, will make up a certificate to present to Chuck. He is certainly deserving of this.

The monthly breakfast is this Saturday morning, April 11, at Cleveland Family Restaurant. This is a gathering of hams from Sheboygan and Manitowoc who meet about 8:00 for good fellowship.

Clancy, K9WIX, gave a little talk on RACES. Some of the club members were interested but did not know how to get involved. He told what it is--who can join--how to join--and what it is they do. You don't need to be a club member to join. They have equipment set up at the Sheriff's Department, and help if there would be a disaster at Point Beach Nuclear Plant or Two Creeks Nuclear Plant or help with HAZMAT. Contact Clancy if you would be interested in helping.

A motion was made by Eric, AF9J, and seconded by Bill, K9DUX to adjourn the meeting at 2023. Lunch was enjoyed by all.

*Submitted for approval
Mary Langer, KB9GOY
Secretary*

Meeting Attendance

Glenn	AA9MT
Mary	KB9GOY
Roger	W9NPX
Fred	W6BSF
Ron	WS9X
Jan	N9IQZ
Dave	KB9KQA
Tom	KB9GRC
Don	KB9NTL
Dick	N9QFY
Eric	AF9J
Bill	K9DUX
Len	N9QFO
Gene	KB9KXE
Ken	K9HAG
Theresa	KB9KXF
Denise	N4WGK
Clancy	K9WIX
Paul	N9QFX

Wisconsin Nets Association Ltd.

Art Evans, KA9KLZ, Secretary
213 N. Jefferson • Cuba City WI 53807-1558

WISCONSIN NETS

Net	WNA	Freq.	UTC	CDT	Manager
BWN	Yes	3985	1200	0700	W9RCW
BEN	Yes	3985	1800	1300	KE9VU
WSBN	Yes	3985	2330	1830	K9UTQ
WNN	Yes	3723	0000	1700	N9MXW
WSSN	Yes	3645	0030	1930	N9BDL
WIN/E	Yes	3662	0100	2000	WB9ICH
WIN/L	Yes	3662	0400	2300	W9UW
RCRA	No	01/61 (Mondays CDT)	0030 (Menomonie Area)	1930	KA9OMC
Gr. Bay	No	72/12 (Green Bay Area)	0245	2145	WB9NRK
ARES	No	4.65/5.25 (South East/South Central Wisconsin)	0200	2100	
RACES	No	3993.5 (LSB Sunday)	1400	0900	WA9OAY

WNA ON-THE-AIR MEETING March 1, 1998

The meeting was called to order by the Chairman WB9JSW at 1830Z.

Present were: WNA members - WB9JSW, K9FHI, W9CBE, W9RCW, W9-IHW, KE9VU, W9KKM, N9BDL, WB9-WHQ, WB9ICH, W9YCV, and W9UW.

Guests:- Andy - KB9UE, Dick - K9-PSH, Mike - KN9P, John - WB9ESM, Bill - WD9ERN, Wayne - WD9FLJ, Ed -

NQ9X and Gary - KA9BAE.

The March minutes were approved as printed in the *Badger State Smoke Signals* by W9RCW/N9BDL.

Treasurer's report: WD9FLJ in a Radiogram message from N9UAR reported:

Beginning Balance: \$245.98
Income: \$146.10
Expenses: \$82.70
Ending Balance: \$309.38

Continued on page 11

Wisconsin Association of Repeaters

Mark Heimmermann, KF9CS, Secretary
1523 E. Moonbeam Tr. • Appleton, WI 54915



MEETING MINUTES March 14, 1998

Meeting was called to order by the Chairman, Nels Harvey, WA9JOB, at 1:00 p.m. It was held at Bay Motel and Restaurant in Green Bay.

Introduction of members and guests:

Mark Heimmermann
Mark Stengel
Greg Schneider
Austin Kayser
Rodney Pajula
Harry Hartmann
Dave Barrow
Nels Harvey
Gary Bargholz
Jeanne Bargholz
Tom Waldschmidt
Cathy Keating
Gary Keating
Virg Burmeister

KF9CS
N9OBG
W9IEI
KB9PCW
N9GHE
N9GDY
N9UNR
WA9JOB
N9UUR
N9VSV
N9LZW
N9FZL
ND9Z
WB9MHS

Richard Kosiorek
Judy Kosiorek
Ron Nelson
Andy Nemec

W9RIC
N9JLQ
N9CFN
KB9ALN

The minutes of the last meeting were accepted as published.

Treasurer's report: Supplemental email from Jim Sheetz, K9OQO, on 3/18/98: We had \$2150.97 in the account before the last newsletter. The newsletter expenses were \$344.44. The account now stands at \$1806.53 as of March 11th.

Newsletter Report: Ray, WD9HOD, is our newsletter editor and I think he does a very nice job. This is a nice looking document and he puts a lot of time and effort into it. I don't want to lose Ray as the newsletter editor but we're going to have to work something out. He is running into a time-related problem with work. We are

Continued on page 11

Wisconsin Nets Association Ltd.

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Motion to accept the treasurer's report was made and seconded N9BDL/K9FHI.

ARRL OFFICIALS REPORTS

SECTION MANAGER - SM K9FHI reported that all ARRL appointments are due to be renewed. They are good for only 2 years. Check on your dates. If they are out let him know. Would like to have more ARRL appointments. Officers and delegates appointments are up to date. NCS should have alternate NCS for all Nets. Need to get participation involved in 9RN reps. as it gets to be too much for just a couple of stations to handle the work all of the time. Always looking for articles of interest for the column in *QST*, send them out.

A correction need to be noted on the last report. The OOC has resigned, but now that has been replaced by Rick, W9RCW and has been doing a good job. Have not heard from ARRL about the SM position for renewal for another term. Have expressed interest in one more term.

SECTION TRAFFIC MANAGER - STM KA9KLZ was not present. ASTM W9CBE remarked that the Northwoods Traffic Net has not been active for the past 4 months, and we should drop them from the active membership. We might have to take action on this.

Would like to receive input as far as ideas about the content and format of the Internet web page. Art is in touch with a person who develops web pages.

SECTION EMERGENCY COORDINATOR - SEC WB9SMM was not present.

BULLETIN MANAGER - BM WB9NRK was not present.

NET MANAGER REPORTS

WISCONSIN NOVICE NET - (3723 at 6:00 PM) N/M KA9GBG was not present. N9BDL reported that the net is doing well, is going 7 days a week at a speed of 8 - 10 WPM. Need help with NCS. The NCS are KA9GBG, N9JIY and KB9OCZ.

WISCONSIN SLOW SPEED NET - (3645 at 6:30 PM) N/M N9BDL reported that the net is running about the same. This net is an intermediate net and it is in between the Novice Net and WIN-Early and is a training net for net procedures and how traffic is handled. The code speed is about 13 WPM. John, WB9ESM was a welcome visitor one night.

WISCONSIN INTRASTATE NET/EARLY - (3662 at 7:00 PM) N/M WB9ICH reported that the net sessions are starting out pretty well for the new year. Getting 8 checkins per session. Passing 96% of the traffic in 10 to 11 minutes time. Need help on 9RN. K5DMC from Kiln, Mississippi checked on time one time in February (Brett Farve's hometown.)

WISCONSIN INTRASTATE NET/LATE - (3662 at 10:00 PM) N/M W9UW reported that the net is progressing OK. Getting out of the usual winter skip conditions, but this winter they were not as bad as previous years. Averaging 5 checkins, 9 minutes time and 1-2 pieces of traffic passed per session. NCS and 9RN are doing well.

BADGER WEATHER NET - (3985 at 6:00 AM) N/M W9RCW reported that the net is holding its own. In January the net was averaging 41 checkins and 52 pieces of traffic per session. In February the net was averaging 46.2 checkins and 56.3 pieces of traffic per session. He also reported that the net is losing Wisconsin members due to SKs and illnesses, but are still gaining new members, but they are coming from out of state.

There is a need to gain new members from the state. The weather service would like to get reports from other areas, as well as additional reports from a given area because there seems to be some variance with stations that are 50 to 60 miles apart. You do not need to have elaborate equipment to do your reports, an indoor/outdoor thermometer, a rain gauge, and a yard stick. Send Rick a message and he will send you a report form and you will get all the help that you will need from the members of the net.

He reports that there is a good bunch of people there. Bill, AA9OM, and Donnie, N9TMI, have been helping immensely for relaying traffic when propagation has been bad. Donnie, N9TMI, has been out of action and is now back.

BADGER EMERGENCY NET - (3985 at Noon) N/M KE9VU reported that the net is doing very well. The net is averaging 19-20 checkins, 5 pieces of traffic and 35 minutes time per session. WD9FRI is back for the NCS Saturday slot. Still need NCS for Sunday if anybody is interested Wayne would like to know. Would like to thank K9FHI and W9RCW for a greater than 90 per cent participation to 9RN. Also K9RTB and W9CBE are also going there. Would like to see more volunteers going there. Would like to thank W9CBE and W9YCV for 99% participation to WIN-L. The alternate net frequency of 7284 has not been used in 1.5 to 2 years due to good propagation at this time.

WISCONSIN SIDEBAND NET - (3985 at 5:15 PM) N/M WB9WHQ reported that the net is doing OK. Would like to thank everyone for the help for the transition over to N/M, especially K9UTQ, K9FHI, W9RCW, and KA9KLZ. In January the net was averaging 23 checkins, 3 pieces of traffic and 39 minutes per session. In February the net was averaging 25 checkins, pieces of traffic and 40 minutes per session. Issued 1 new member net certificate. Need more alternate NCS. Will send out a net preamble to anyone interested. NCS are doing a great job and have not missed a session in a couple of months. The new starting time of 5:15 seems to be working out OK.

Would like to thank all the 9RN reps for bringing in and sending our traffic. Would like to update the net delegate list, K9FHI, N9UAR. Would like to have K9UTQ continue to be a delegate and K9ANV, who has not been active for quite a while. Would like to have volunteers for more delegates contact the N/M. When checking into the net and if you are on short time, let the NCS know so if there is traffic for you area it can get passed before you can leave.

NORTH WOODS TRAFFIC NET - (146.94 Rhinelander at 6:30 PM) N/M NS9Q was not present. N9BDL reported that he tried to make contact with the N/M by the telephone many times and was not able to do so. Lee said that he was afraid that the interest there is lost and have not heard from anybody that they would like to have the another net on the .94 repeater and is sorry to see it go.

OLD BUSINESS

No report was given about promoting the nets.

No report was made on the web page that is under consideration. The items were tabled until the next meeting in June.

NEW BUSINESS

Carl, WB9JSW, stated that the next meeting should be held Sunday, June 7th at Junction City, in conjunction with the CWRA Swapfest at noon. K9FHI said that he would contact the officials and contact Carl about the accommodations.

A motion was made and seconded to drop the membership of the North Woods Traffic Net from the WNA WB9WHQ/K9FHI.

The membership vote was tabled until the June meeting pending action by the secretary to write a letter to the present delegates asking them if they want to withdraw or after some discussion today and the next meeting they can be dropped.

The date for the WNA Picnic in late August or early September and to reserve a location needs to be set. Carl said that he will contact Bob, N9UAR, to set up a location and a date.

WB9WHQ asked clarification about the tasks of delegates. N9BDL and WB9ICH both stated that it is up to the N/M to send to be a contact or represent the net at meetings if the N/M is unable to attend. WB9WHQ and W9RCW both requested a copy of the Constitution and Bylaws. Carl said that he would send out the copies and do some research.

Motion was made and seconded to have the SM report given in the meetings after all the delegates have reported in their respective nets FHI/RCW.

W9IHW reported that bad quality signals, i.e. music in the background, overdriving and RF feedback should be mentioned.

Motion was made to adjourn the meeting was made KE9VU/W9KKM.

The meeting was adjourned at 1920Z.

Respectfully Submitted:
Gary Pedersen,
KA9BAE
Acting Secretary

Wisconsin Association of Repeaters

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going to have to work with Ray and form a newsletter committee. He needs help getting the newsletter from the printer's to the mailbox.

Coordination Report: Both my E-mail and US mail has been working very well. I hope I have not forgotten anybody or misplaced any mail. I am just about caught up with all the various individuals and groups wanting to put together a new system. I am still working on a couple of complaints with interference from other systems on the same frequency pairs. Frankly, these are not new systems that are involved but seem to be systems that have upgraded their systems without notifying their coordinator first. Raising the antenna, increasing the ERP, changing sites are all items that need to be checked out with your frequency coordinator. He will make every effort to help you make the correct choice in your upgrade efforts.

From December to March, 11 new or changed coordinations have been processed. Also during that time, 28 repeaters have been removed from the list.

Chairman's Report: MACC - Before a repeater can go online, a coordination request is sent to the adjacent states: Indiana, Iowa and Minnesota. Whether or not it's within a reasonable distance of the state, we automatically send it. The adjacent state coordinators rule on it. This is a procedure recommended by MACC. MACC also determines by the right of succession who the proper coordinator is. This is the basic purpose of MACC. MACC has their annual meeting in the middle of April, and this year the meeting is in Kansas City. Each state has two delegates that they can send to the meeting, or send proxies to the meeting for votes. Dan Bolander and I have been the delegates in the past. I have been MACC vice president for a number of years and my term runs for another year.

NFCC: I plan on attending a forum on the National Frequency Coordination Council (NFCC) at Dayton this year. MACC is a regional council where NFCC is a national council. The NFCC is coming into play. It's been three years in the making. Right now validating is going on to form the basic rules and ground work for the group. WAR represents the state of Wisconsin at the NFCC. We have three votes based on the number of amateurs in the state.

Farewell: I've been coordinator for fourteen years and for the last four of those fourteen years I've been chairman of this group and it's time for new blood and new thinking. I have decided to step down but not go away.

New Business: A motion was made and seconded to "Subsidize \$200 for each of the two individuals attending the MACC annual meeting (same as in previous years)". All members present approved the motion.

The floor was opened for nominations for WAR officers. The following nominations were made: Chairman: Gary Bargholz, N9UUR; Vice Chairman: Mike Hamman, KA9BHL; Secretary: Mark Heimmermann, KF9CS; Treasurer: Jim Sheetz, K9OQO; Technical Director: Scott Thompson, WB0WOT

A motion was made and seconded that "All motions be closed". All members present approved it. A motion was made and seconded that "The secretary be instructed to cast a unanimous ballot in favor of the unopposed candidates". All members present approved the motion.

The position of Frequency Coordinator is an appointed position. The new chairman will appoint a Frequency Coordinator after talking with Dan. The Chairman will also appoint two delegates to represent WAR at the annual MACC meeting.

The next meeting will be June 13, 1998 in Tomahawk. Meeting was adjourned at 2:05.

Respectfully submitted
Mark Heimmermann, KF9CS
WAR Secretary



Washington County Amateur Radio Club

Tom Waldschmidt, N9LZW,
Secretary
465 Elder Lane
Allenton, WI 53002-9799

Club Repeater: 146.73 MHz

<http://www.nconnect.net/~WCARC>

MEETING MINUTES April 09, 1998

The April 09, 1998 meeting of the Washington County ARC was called to order at 7:28 P.M. by President Paul (Rip) Ripple, W9SIZ. There were 15 members and 1 guest in attendance. They were: Tom Waldschmidt, N9LZW; Dave Parkinson, KA9RNU; Paul Ripple, W9SIZ; Don Woelz, K9GR; Sherm Carr, W9NGT; Abe Galonski, KG9LO; Larry Puza, WB9BVB; Ed Frac, AA9VS; Bob Bieszk, KG9CW; Paul Thyren, N9KIK; Brian Skrentny, N9LOO; Dick Scarvac, K9CAN; Gary Sutcliffe, W9XT; Bill Fullhart, N9IBU; Bob Stockfish, AA9EF; and Kevin McCarthy, N9LTH.

The minutes of the March 12th meeting were read by Secretary Tom, N9LZW. There was a motion by Don, K9GR, seconded by Bob, AA9EF, to approve the minutes. Motion carried.

The Financial Report was read by Treasurer Dave, KA9RNU. There was a motion by Sherm seconded by Gary, W9XT, to accept the Financial Report. Motion carried.

CORRESPONDENCE

Tom, N9LZW, reported that the only correspondence was from the Central Wisconsin Radio Amateurs announcing their Swapfest and Auction to be held on

Sunday June 7, at Junction City, WI.

There was some discussion about proposed amendments to the constitution but it was determined that we still did not have the necessary number of members present to approve them.

REPEATER COMMITTEE REPORT

Don, K9GR, the Repeater Committee Chairman gave a Repeater Committee Report. Don said that he has received favorable reports about the operation and coverage of the club's repeater. He said he encountered a problem when installing PL on the repeater. The power supply fuse kept blowing. Someone will be assisting Don with this installation and he expects to have it working soon.

Tom, N9LZW, noted that the St. Lawrence Fire Department has installed an antenna on the tower. He said that it was at the same level and parallel to the club's antenna. Sherm said that this could affect the tuning of our system and that it will need to be checked. Don said he will look into this to make sure that there is no conflict with our system.

OLD BUSINESS

There was no old business.

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Washington County Amateur Radio Club

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NEW BUSINESS

Rip, W9SIZ, said that Field Day was just two months away and that we needed a Field Day Chairman. After a period of discussion, Sherm, W9NGT, suggested that Rip handle Field Day plans and that the club would get him plenty of help. Rip agreed to this arrangement.

Rip, W9SIZ, also questioned how many golfers we had in attendance. There were only three present. Rip said his suggestion was that we have a club golf outing and possibly play 18 holes at the new Washington County golf course. Don, K9GR, one of the three golfers, caused some laughter when he said he didn't think he would be able to play 18 holes. Rip will bring it up again at the next meeting.

Tom, N9LZW, explained that the club's membership in WAR (Wisconsin Association of Repeaters) was up for renewal and that he forgot to bring it up at the last meeting. He had gone ahead and renewed it at the \$20.00 rate which authorized us two newsletters. Tom said that he and Don, K9GR, have been receiving the newsletters. Tom proposed a motion that the club renew its membership in WAR and that it reimburse Tom for the payment which he already made. Sherm said that he would make that motion and it was seconded by Don, K9GR. Motion carried.

There was a motion by Sherm, W9NGT, seconded by Bill, N9IBU, to adjourn the meeting. Motion carried.

Respectfully submitted,
Tom Waldschmidt, N9LZW, Secretary

PROGRAM

Following the meeting the members were treated to a program put on by Dick Scarvaci, K9CAN. Dick spoke on

computer monitors. He said that there are a some common monitor problems that can be repaired quite easily. Seventy percent of monitor problems are related to a loss of power. This can be related to something as simple as a defective switch or a damaged solder connection resulting from stress on the circuit board behind the switch. He also showed some examples of other problems that can occur including loss of one color. Often this trouble results from stress on the CRT tube socket and can be corrected by resoldering the connections. Dick did a fine job with this presentation. If all else fails, you can contact Dick to service your monitor for you. Dick said that repairing an old monitor is often more expensive than purchasing a new one. Dick said that he salvages parts from monitors for use in repairing others.

CALENDAR OF EVENTS

05/02/98	8:00 A.M.	Ozaukee Radio Club Swapfest, Cedarburg
05/02/98	9:00 A.M.	Breakfast, Jimmy's in Jackson
05/07/98	7:30 P.M.	Net, 146.730
05/09/98	8:00 A.M.	Lakeshore Hamfest & Computer Swapfest, Manitowoc
05/09/98	9:00 A.M.	Breakfast, Mineshaft in Hartford
05/14/98	7:30 P.M.	WCARC meeting, Washington County Courthouse, West Bend Program: Homebrew Contest! Get those projects done.
05/16/98	9:00 A.M.	Breakfast, Jimmy's in Jackson
05/21/98	7:30 P.M.	Net, 146.730
05/23/98	9:00 A.M.	Breakfast, Mineshaft in Hartford
05/28/98	7:30 P.M.	Net, 146.730
05/29/98	9:00 A.M.	Breakfast, Jimmy's in Jackson

REPEATER ANNOUNCEMENT

All users of the 146.730, N9LZW, repeater in St. Lawrence, WI, should be aware that the repeater is now operating on full PL. That means that you will need to transmit a PL of 127.3 for access and that it transmits a PL of 127.3 for those who want to make use of that feature. This change is expected to make the repeater more enjoyable for all to monitor and use. □

Alabama tornadoes

Continued from page 8

WO4W, had words of praise for his fellow hams. "I thought the watch and warning process was just flawless," he said. Peters, Spann and others agreed that spreading the word quickly on the approaching danger saved many lives, and hams deserve at least part of the credit.

Black says that, at one point, 14 Alabama counties were under tornado warnings at the same time. Tornadoes touched down in the Edgewater community west of Birmingham, damaging homes and other structures. More than 30 people died in Jefferson County alone, and the funnel cloud even threatened downtown Birmingham at one point. A tornado also caused heavy damage in western Tuscaloosa and St. Clair counties, where others also lost their lives. Johnson said St. Clair County ARES/RACES members assisted emergency management personnel and "probably did 90% of the damage assessment" in the county. Johnson says Mark Oglesby, KF4NLZ, left his home during the storm on a damage assessment foray only to return and find his own home gone in the tornado's wake.

As the extent of the damage became clear, hams in Birmingham were called upon to provide communication backup at Red Cross shelters set up for storm victims. More than a dozen shelters remained open a week later. Johnson says members of the HEART Net were very active in western Jefferson County providing shelter communication and other help as needed. Fortunately, Birmingham's repeaters remained on the air and got heavy emergency use. Hams also helped provide communication between responding agencies and volunteers searching for victims and assessing the damage from the violent weather.

Robert "RB" West, W4BAT, who lives near Montgomery and away from the disaster area, lent a hand to the Salvation Army in the storms' wake. "They are swamped with work in Birmingham," he said, "so, I gave a little help here at the Montgomery center." West said he wor-

ried about the Montgomery area as the storms approached, and he tuned to a local weather spotters' net. "I had no idea what was going on 100 miles north," he said. In the stricken zones, the Salvation Army has set up feeding centers and has been relying on hams for some logistical support.

Black passed along tales of personal heroism on the part of some amateurs. Some examples: Janice Rock, KF4PVR, Ricky Rock, KF4RRS, and Joel Booth, KF4PWA—all ALERT members and all Emergency Medical Technicians—responded and helped carry a man with a head injury nearly a quarter mile through a thickening of fallen trees to an ambulance. Licking a stretcher, they used a door they found to carry the victim. After hours on the SKYWARN nets, Bill Heaton, KE4FBH, went around delivering water and food to victims who had not eaten all day. Walter Cooney, KF4AAG, was stationed at the Birmingham-Jefferson County EMA headquarters and he was the point man for a heavy load of damage reports passed via 2 meters. Many other hams assumed less epic roles and just pitched in as needed with the work at hand.

Disaster officials called the destruction some of the worst they'd ever seen. Vice President Al Gore and President Clinton also have visited the disaster scene. Hams are expected to remain available to help as the long recovery process continues in Alabama.

--thanks to David Black, KB4KCH, Tom Moore, KL7Q, Scott Johnson, N4YYQ, and others

The ARRL Letter, 4/17/98

Wisconsin's 150th

May is upon us, the month Wisconsin joined the Union. During the next two months, a total of six special event stations will operate to celebrate. See last month's issue for complete details.

OFFICIAL PUBLICATION OF CENTRAL WISCONSIN RADIO AMATEURS, LTD.

At University of Wisconsin, Stevens Point

WATTS SNOO



WB9QFW 2-Meter Repeater 146.07-.67 and Club Station

249 Georgia Street North • Stevens Point WI 54481-1040

MEETING MINUTES Thursday, April 2, 1998

The meeting was called to order at 7:30 p.m. by Mike Pagel, K9UW. A motion was made by Jerry Fadness, W9GF, and second by John Feltz, W9JN, to approve the minutes of the March meeting. Motion carried. Joe Larson, N9JW, read the financial report for March and motions to accept the report were approved.

Joe Larson, N9JW, reported on the status of the General class he is teaching. Five people are presently enrolled. And Jerry Fadness, W9GF, volunteered to teach Advanced class shortly after completion of Joe Larson's class if there is sufficient interest.

Bob Baird, W9NN, reports that there are no complaints regarding the 985 repeater and it appears to be operating without any problems. Bob also spoke briefly about the A-1 Operators Club.

Mike Pagel, K9UW, says that a new power supply was installed for the 670 repeater and it too is functioning without any problem.

Joe Larson, N9JW, reminded us that the Special Olympics will be held in Stevens Point June 4, 5 and 6 and that all club members are invited to come out and help for a satisfying experience.

Mike Pagel, K9UW, reported that the 1998 Midwest Renewable Energy Fair in Amherst, WI, may feature an Amateur Radio station on alternative power. If this comes to pass, there may be a request for local hams to help with operating the station. Details are sketchy at present but we hope to have more information at the May meeting.

EC Jerry Fadness, W9GF, met with Sandra Curtis, Emergency Management Director, and reported on the results of that meeting. He said that Portage County has purchased a DTN System. It will be put into operation pending completion of the new courthouse annex. The DTN System uses satellite technology to provide

the most current weather data available with frequent updates and local, regional and national weather conditions. Jerry remarked about the splendid cooperation he received from the people on the weather net during the last storm.

John Feltz, W9JN, gave us a comprehensive report on the progress of the upcoming swapfest. A motion by Wayne Johnson, K9MIF, and second by Bob Baird W9NN, to provide John Feltz with \$75.00 for incidental expenses connected with the swapfest was approved.

Mike Pagel, K9UW, suggested that it would be a fine gesture for us to drop Frank Guth, W9BCC, a card or letter. Frank has been a long time member of the club and spent many tireless hours on various community events. Frank is now a resident of The Evergreens South, retirement home. You can write: Frank Guth, W9BCC, The Evergreens South, 2841 Maple Dr., Plover WI 54467. (From an editor to another, my best wishes, Frank. - Jim, K9ZZ).

Mary Eiden, KA9FAS, moved to adjourn and seconded by Bob Baird, W9NN, was approved. Meeting adjourned at 8:45.

Respectfully submitted,
Al Mallek, NW9BS, Club Secretary

Members Attending

Bob Baird	W9NN
Wayne Johnson	K9MIF
Gerry Fadness	W9GF
Kathy Mallon	KB9ROJ
Joe Larson	N9JW
Mike Pagel	K9UW
Mark Nemzoff	N9ICY
Mike Eiden	WD9JID
Mary Eiden	KA9FAS
John Feltz	W9JN
Mike Peters	W9CO
Al Mallek	N9WBS
Jan Rydberg	KB9RUJ

Taylor County Area Amateur Radio Club

Tom Hrdina, N9GEN, President

2373 Willow Avenue • Medford WI 54451

MEETING ANNOUNCEMENT

The next regular meeting will be held on Thursday, May 7th at 7 p.m. in the Emergency Government meeting room located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Talk-in on the 147.15 Medford repeater (+600 kHz) or 146.52 MHz simplex.

MEETING AGENDA/PROGRAM

Among other things, there will be discussion on possible club participation in this year's Field Day.

CLARK/TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE (ARES) NEWS

Mike Schoenfuss, N9GHZ
ARES Emergency Coordinator

• Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/147.15). If the repeater is down or not functioning properly, alternate frequencies, in order, are 147.15 MHz simplex and 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

• A Taylor County Severe Weather-/SKYWARN Net was conducted on 3/29/98 on the 147.15 Medford repeater. N9GEN acted as net control operator.

N9RRF, Granton, provided liaison to the Clark County SKYWARN Net and to the NWS at La Crosse. Others participating in the net were: KB9BLV, AA9LE, KE9LX, NZ9U, N9UBQ, KB9AMZ, KB9RBL, KA9WDX and N9IFA. The net was activated at 6:45 p.m. and closed at 8:20 p.m.

• The following individuals recently successfully completed the "Hazardous Materials: A Citizen's Orientation" course held at Medford: N9GHZ, KA9WDX, N9GEN and WD9FWP. □

IN JUNE BSSS:

Wisconsin QSO
Party • Official
Results

Fox Hunting,
International
Style

by Austin Kyser, KB9PCW

Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

Larry McCalvy, WA9JMO
5400 Six Mile Road
Racine, WI 53402



After many years of hard work, Ed Konicek, W9NVK, has finally earned the right to call himself -- Retired! Ed's April calendar, I understand, has only Saturdays and Sundays for the days of the month. Ed and Marie are looking forward to leisure mornings and relaxing afternoons - until the grandkids come visiting. Welcome, Ed and Marie, to the world of retirement. Soon you will join us in wonderment. Wondering, with all the things you are now engaged in, how you ever found time for work.

Bob Jensen, W0WLN, gave up some tasks associated with his condominium association and now is busy setting up emergency communication lines for some of Racine's elderly who live alone. The service allows a senior, should an emergency arise, to press the button on a small device worn around the neck, to activate his or her telephone. The telephone would dial a pre-determined number and the subscriber would be able to communicate verbally with the individual on the telephone from anywhere on their property and inform the service of the emergency.

Our Chapter would like to officially offer our congratulations to Bill Komistra, W9OVZ, on upgrading to the Extra Class license. We know it was not easy Bill, but your perseverance prevailed in the end. Now you can gather in those rare DX stations with less competition on the low end of the band.

We will be losing George, K9AAL, and Suzy Pagels from our active event participation group. They are moving to Kansas City on the 8th of May. Hopefully, you will follow the examples of our other long distance members, Art, W9VSO, and Terry ("Squeaks"), N9VKF, Vahovius, and ED, WA9Y, and Cecilia Westberg. When they plan a trip back to Wisconsin they try to make it around some of our social gatherings. George and Suzy, the best of luck in your new endeavors. And remember, if those folks don't treat you right, pack up and head to Wisconsin

where you'll be welcomed with hugs and a parade (Well, I'm not too sure about the parade). Stay in touch!

Our 11th anniversary bash was a huge success, if the quantity of food consumed was the sole judge. The American Association of Retired Persons (AARP) played an unexpected part in our celebration brunch. The restaurant only allowed a 20 percent discount to the group's diners who had AARP membership cards. A nice unexpected savings. Now who said it doesn't pay to get old? Our pictorial history file was on display and President Spencer Clope, W9LDH, pontificated on the founding of Chapter 162 at the beginning of the meal.

It has been rumored, but as yet I can not nail down the source, that our Robert Burgermeister, W9EH, may be considering matrimony! I really do not know personally, but perhaps W9VSO could shed some light on this situation?

Although I did not hear President Clope set a place for our May meeting, I will slide out on the proverbial tree branch and say the meeting will be on Monday, May 18, 1998, 7:30 p.m. at the South Fork Restaurant, 3300 Sheridan Road (corner of 7th Avenue) in Kenosha. Check with the gang our weekly net, 147.270 MHz, 9 p.m., Thursdays for all the latest details.

Ellanora (Herb, W9PHJ) Ladwig is still experiencing some medical problems, but Mamie (Al, W9HR) Algiers tells me she is rapidly improving. We wish you a speedy recovery, you and Herb were missed at the Anniversary Bash last month.

I had a bunch of lies I was set to spin into a longer tale about the rest of you folks, but the editor of this paper called to rag me into getting our material to him. I think it had something to do with a deadline I am always exceeding.

73,
Larry McCalvy



SHEBOYGAN County Amateur Radio Club

Mike Musiel, KF9SJ, Secretary
N9001 Dairyland Dr., Cleveland WI 53015

MARCH 1998 MINUTES

The March meeting of the Sheboygan County Amateur Radio Club was called to order by Vice President Larry, WB9FXQ.

The SCARC meets every second Tuesday of the month at the Red Cross building, 2032 Erie Ave. in Sheboygan at 7 p.m.

In addition to presenting the DX report, Art, K9XJ, is looking for any Silent Key information that club members may have. The SCARC is in the process of putting together a memorial plaque in honor of past club members.

Lee, N9YLS, has started a sign up sheet for Field Day 98. Be sure to contact him to reserve your favorite operating time. He discussed what equipment and supplies were available, and what is still needed. Remember to mark down June 26, 27, and 28 in your calendar for Field Day!

If you are using e-mail, you can sign up for the Sheboygan Hams mailing list by submitting your e-mail address to julian@bongo.tele.com. Email sent to shebham@tele.com will be forwarded to

all list subscribers. Thanks go to N6ARE for providing the mail server for SCARC and ARES use.

Remember to have your club officer nominations in by the May meeting. The next meeting will be Tuesday, May 12th.

Net Schedules

7 p.m. Monday Nights, SCARC Fun Net, 147.06 PL 107.2, +.

Traders Net - Following the Monday night net on the first Monday of the month.

6:30 p.m. Thursday Nights, ARES Net, 147.255 PL 127.3, +, 444.175 PL 107.2 +.

10 net on 28.350 USB. Meets at 7:30 p.m., following the Monday night 2 meter net.

Respectfully submitted:
Michael J. Musiel, KF9SJ

REPORT:

NYC taxis abandoning 10 meters

Under heavy pressure from authorities and from increased Amateur Radio activity, taxicab operators in The Big Apple reportedly are moving off 10 meters in droves, says Gerry Smith, W6TER, of New York. Smith heads an ad hoc committee that's been working for more than a year in the Hudson Division to clean up the problem. "Sure, there is a straggler or two, but for the most part, the band is clean," Smith announced recently in a report published in The Hudson Loop newsletter distributed to ARRL Hudson Division hams. Smith says that he was able to work Argentina recently on 28.045 MHz, one of the frequencies most often used by the cabbies.

ARRL Hudson Division Director Frank Fallon, N2FF, says Smith contacted him in early 1997 about starting up the ad hoc group to attack the problem. "I was honestly not too hopeful that we would be able to solve a problem that was almost ten years old," Fallon conceded. "Now, I'm no longer skeptical of what can be accomplished."

Smith credited a crackdown by the New York City Taxi and Limousine Commission (TLC) and the FCC for the exodus and called it "the largest successful enforcement action ever." During mandatory quarterly inspections, the FCC paid a visit and warned drivers with illegal radios that future violations could result in hefty fines. For its part, the TLC mailed an industry notice to taxi owners, fleet shops and repair stations warning the cabbies of possible enforcement action. To help the process, the ad hoc committee purchased frequency counters for the TLC to use in its regular inspections and during airport raids and street inspections and is providing training in their use. The problem is potentially huge. There are some 44,000 New York City cabbies and more than 12,000 cabs. Drivers supply their own radios. Some 1500 or more illegal radios were believed to be in operation.

At its January meeting, the ARRL Board of Directors applauded actions by the FCC and the TLC to crack down on illegal use of the 10-meter band by taxi drivers. The Board urged confiscation of equipment and fines to drivers who fail to comply, as well as removal of illegal transmitters from all cabs.

Smith praised the "tremendous cooperation" between the TLC and the ad hoc committee, which also includes Fallon, RF engineer Marvin Bronstein, K2VHW, and attorney Arnold Katz, W2QK. A ham since 1954, Smith is a telecommunications consultant.

"The days of no fines are over with,"

he said, citing a pledge by the TLC to enforce its ban on illegal radios by imposing fines of up to \$300. Smith encouraged hams to use 10 meters regularly as a way to deter interlopers and to report CB-type activity on the band.

Fallon hopes the success with the taxi radios indicates the "new mood" at FCC in enforcement. But he says hams will continue to monitor compliance. "The best part of the entire effort is to attend a New York City Amateur Radio club meeting and hear members say, 'Yea! The cabs are gone!'" Fallon said.

The ARRL Letter, 4/17/98

To the Web!

It has to happen, and it will. At some point, this newspaper will be available two ways: printed and on the Web. Yes! We are actually going to enter the 20th century, about 99.5 years late. The Web version will be updated at least every two weeks. And, if necessary, more often.

We need to find two people to make this happen: Someone to sell ads on the Web version and someone who knows how to set up Web pages in HTML.

The Web version will permit us to bring you important news quickly, like "alerts"; those times when a "bad" bill shows up in our state legislature, for example.

The Web version will have photos, of course, just like the paper version you are reading now and will line your bird cage with later on. And the paper version will continue for quite a while.

There is nothing definite about time frames for all this. I think (hope) it is safe to say the Web version, at least a basic one, should be up in less than a year. But we do not want to rush into this. We want to make it something you will find educational, interesting, and enjoyable, and, most of all, current. There is a great deal to be researched before we even begin this project. But it will happen.

So, any takers for an opening page sponsor? Tell K9EN. Jim, K9ZZ

Last-minute exam notice

Pewaukee, WI

Saturday, May 2, and Saturday June 6

Doors open at 9 a.m. Registration until 10 a.m. Contact Al Johnson, AA7CS, (920) 568-0836.

No exams will be given in July or August.

Red Cedar Repeater Association, Inc.

Steve Hart, KA9OMC, Secretary

E616 810th Avenue

Knapp, WI 54749

2-Meter Repeater: 146.01 Input/146.61 Output

Greetings, RCRA sponsors and guests.

RCRA welcomes N9FVA, Chuck at Menomonie, as our most recent sponsor. Chuck has been renewing his interest in music and taking some piano lessons.

K9IAG, Ken Drake at Menomonie, has returned to the Saturday coffee after being tied to oxygen this winter. Ken suggests that beets are one of his summer vegetables he enjoys just sliced and fried in a pan.

N0PDD, Bob Stark at Winona, MN, reports that there are seven amateurs in his family repeater. Bob has received a new controller for the system and is working on acquiring tone boards. Look for Bob on 147.285.

NX9F, Jim Ley at Menomonie, reports "Quality, not Quantity" at the spring VEC exam at Stout. There was only one exam given, but the ham passed the Extra Class.

N9PPE, Jeff Cole at Bloomer, is close to passing his flying requirements for his license.

KB9RQE, Dan Holmen at Colfax, has volunteered to help paint the repeater building roof.

KB0LYL, Art from Red Wing, reminds us of the Hiawatha Valley Amateurs Net on Sunday evenings at 8 p.m. on the 147.300 repeater.

N9RSU, Leroy Dick at Eau Claire, has sold his 440 repeater and has been putting much time into improving his 220 repeater system. Leroy has some 2-meter HTs for sale and associated ham gear. Call him at (715) 836-9335. N9RSU's interest in ham radio started when he was age 13.

N9KMY, Dave Kaun at Menomonie, has done some work on the 146.805 MHz repeater. Dave indicated that a cavity was going down the receive signals.

9:15PM, Bob at Eau Claire, has a

BY1 Bencher key for sale. Contact Bob at (715) 831-1710.

KB9GNE, Todd Holtzman at Wheeler, has had wrist surgery. Looks like a couple weeks for healing.

The club is planning a thrift sale of household items that you don't want for May 9 in the Cedar Falls area. Call KA9-OMC at (715) 665-2374 for the details. Any items not reclaimed by the end of the day will be retained by RCRA.

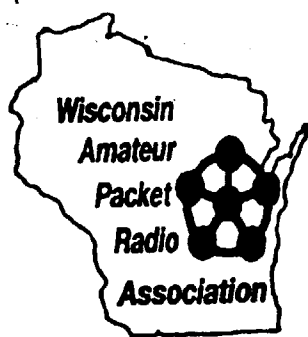
Discussion about the March social hour was much about our financial status here at the repeater. All indications are that we may default mid to late summer without added revenue. Dave Kraft indicated that we should again tailgate at the Eau Claire Hamfest this year.

There was considerable discussion about what it takes to get young people started in the hobby, and we all seemed to believe that we have lost much of our past connection with education in the local area. Your ideas and energy are needed if we are to continue.

There has been much coverage of the St. Peter, MN disaster that occurred on March 29. Our local SkyWarn net ran from about 4 p.m. to 8 p.m. N9ZFY, Everett at Durand, drove into the eye of the storm as it crossed the river into Wisconsin. N9LRV, Gerald, gave us radar updates from the Dunn County Emergency Government Office. There was an excellent turnout, and thanks to all who helped. Storms average 64 deaths a year, and this year there have been 103 so far.

Get-wells to KE9RW, Steven Kraft, on his intestinal surgery, and to N9ZFY, Everett, on his continued treatment.

Steve Hart, KA9OMC
RCRA Secretary/Treasurer



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association

Bob Gedemer, KA9JAC

609 Wilson Street • Neenah, WI 54956

Andy Nemec, KB9ALN, Editor • 720 N. Broadway (Upper West) • Green Bay, WI 54303

WAPR News - May 1998

Hello again, everyone. Happy May - let's hope we are blessed with an abundance of good weather.

To start with this month, a reminder of two recent "changes of the guard". I reported on these last month, but feel that the word should be put out again.

Walt, AA9AW has taken on the position of WAPR frequency coordinator. The WAPR frequency coordinator assigns LAN and backbone frequencies throughout Wisconsin. This is an important position, simply because coordination of packet operating frequencies is essential to network development everywhere, including Wisconsin. If you are thinking of putting up a network node, need a LAN frequency in your area, or have any questions regarding packet frequency assignments, be sure to contact Walt. You can reach him via packet at: AA9AW@AA9AW.EN43KM.WI.USA.NA. Via internet at: waltus@centuryinter.net.

I also reported that Ron Nelson, N9CFN is the new IP address coordinator for Wisconsin and Michigan's Upper Peninsula. If you'd like to try out TCP/IP and need an address, or need to add another address, then contact Ron. You can reach him via E-Mail at n9cfn@juno.com.

Now on to real new information. WAPR will be holding it's annual meeting this year at the Steven's Point - Junction City Swapfest. We have been doing this for a number of years now, and are thankful to the folks who take the time and trouble to put this fest together. They have been kind to the WAPR membership in providing us with the facilities to hold one of our quarterly meetings.

As usual, the meeting will get under way at 10:00 A.M. More specific information will appear next month in this column. But I mention it now to get you thinking.

Thinking about participating in WAPR as a board member or officer, to be precise. Joel N9BQM (our chairman) has expressed his desire to not continue his chairmanship for another year. There are other officers who have been on the board for a few years now, and they are looking for a break. This is good time to step forth and get in on the planning of the future Wisconsin network by serving as a board member or officer of WAPR.

So, if you are looking to get involved in Wisconsin packet radio as more than a packet operator, this is your chance. Just come to the WAPR annual meeting in Steven's Point. You can make a difference in the future of Wisconsin Packet Radio.

One last topic for this month. As you know, "Using the Wisconsin Network" has been going along through 39 parts now. Originally, I did not envision it going for quite this long. While I have tried to keep it pertinent to what you are likely to encounter in Wisconsin, there is a limit to what can be written about. This month, I have talked about an interesting networking option, Flexnet. While there is certainly little (if any) Flexnet operation in Wisconsin, I thought it would be interesting to look at something a little different.

Which brings me to a bit of a problem - I am beginning to run short of pertinent ideas to write into this series. There is enough material for another installment, but the series is nearing it's end as an exploration of the Wisconsin network. So I am forced with making a decision on what to do next. I have decided to do two things about this. First, I would like your suggestions on topics to include for additional parts of the series. If there is something about the Wisconsin Network that you have not seen covered before, simply send me mail on it. If it has not been done before, I will try to do it.

If there are no suitable suggestions for articles, then we

will stop the series at part 40 and move on to other articles concerning packet radio. They may or may not be directly applicable to the Wisconsin Network, but would be of general packet interest. So, let me know what you think about this, along with your suggestions, if you have any.

That's all for this month. Until next time, 73 from Andy.

Using the Wisconsin Network - Part 39

by Andy Nemec, KB9ALN

In this part of the series, we will take a look at a different way to network in Packet Radio - Flexnet. Flexnet is a digipeater-based method of networking nodes, somewhat similar to "Net/Rom", which is used extensively in Wisconsin. Although I am not aware of any Flexnet digipeaters operating in Wisconsin, it is interesting to look at other networking options. Flexnet comes to us from Germany, and was developed nearly 10 years ago. It enjoys wide popularity in Europe, but has not caught on much here in the U.S.

Some may be wondering why Amateur Packet radio should use digipeaters - after all, they are inefficient and one missed packet can translate into several retries on a marginal path. With normal AX.25 digipeaters, this is indeed a probability. Flexnet, however, operates differently than digipeaters that you may be accustomed to. Packets are acknowledged over every step of a multiple-hop link. This makes for a reliable connection over several digipeating "nodes". The mechanism used to acknowledge packets is different than Net/Rom, and far more reliable (according to it's proponents). The end-to-end acknowledgment of basic, unenhanced digipeating is gone, along with it's problems.

Flexnet is AX.25 based, and has the ability to digipeat TCP/IP frames that are encapsulated in AX.25. Net/Rom does not have the same ability to carry TCP/IP - when forced to, it will, but very poorly.

A thought may have occurred when comparing Flexnet with Net/Rom. Does a packet operator have to know the call-signs of every digipeater in the connection path? No, Flexnet is autorouting. In other words, it knows if it can get to a distant digipeating node, and which route to take in order to get there. All you need to know is the call-sign of the station you wish to connect to, the call-sign of the local digipeater (node), and the call-sign of the distant digipeater. > From there, routing is automatic - the network knows the way. The down side is that operators will not have the easy node aliases to remember - Flexnet seems to operate with call-signs only. It may be possible to use an alias as a call-sign, but the authors do not mention this in their introductory documentation.

Features:

One very attractive feature of Flexnet is compression - all packets sent between Flexnet Digipeaters are compressed to save bandwidth. This helps with speed - Flexnet spends a lot of time acknowledging packets between it's digipeaters. That acknowledgment makes for it's good reliability, and the compression is needed to make this operation speedier than it would normally be.

As was mentioned before, it's acknowledgment method is different than Net/Rom. This means that "hung" Net/Rom connections would be a thing of the past. Connections across state lines with multiple digipeating "nodes" is theoretically possible (if enough nodes exist to make a path). It's authors say it is possible to make a connection across Germany and into other countries solely with RF based nodes. It should be noted though, that Germany and most of Europe enjoy an abundance of network nodes, so this more than anything

makes this possible. However, it does effectively show that we can overcome the Net/Rom restriction on the number of links. And it also shows us that Flexnet is a workable networking system in a crowded packet radio environment.

Flexnet is not limited in it's architecture in most ways. It is capable of operation at both 1200 bps and 9600 bps. It is capable of multi-port operation, so it is possible to incorporate it into a LAN/backbone "node stack" setup. It should be noted that there are some serious hardware considerations that we will explore later on.

And one appealing feature certainly is cost - there is none. It is available through the Internet on the author's home page.

Drawbacks:

There are a certain number of drawbacks to Flexnet, and they would certainly have a bearing on it's implementation. While the software is free, a node operator may well have to make it all up with hardware. The most common implementation involves a number of PC Packet cards, installed in a personal computer devoted to the task. It is possible to use a KISS TNC with Flexnet, but all of the Flexnet capabilities are generated in software. As of this writing (and this may be subject to change soon), there is no plug-in TNC-2 firmware chip that has Flexnet capabilities. So, a computer has to be used to perform the actual Flexnet operations.

And based on experience, an 8088 may not be fast enough to do the trick in a multi-port "node-stack" type of setup. Now that 386 computers are getting fairly inexpensive on the used market, this may be less of problem than in years past. However, most node sites are remote and "unattended". One may go through more than a few 386 computers in a good lighting season!

TCP/IP operators may have an interesting time with Flexnet. The main difference between it, and say, an X-11 node is that it reverts to a "Virtual Connection" mode rather than a "Datagram" mode. This means you will have a particularly difficult time with timing parameters like IRTT, for one.

The most significant drawback to Flexnet may be the very thing that may make it desirable - it is different. This means that any part of the network using it would not easily interface to a different network. Even if a large commitment to "change over" network software was agreed upon, there would be gaps in coverage while the changeover was taking place. Some may consider it a nuisance, others (like Emergency Coordinators) may look at changeover coverage gaps as a real handicap, temporary or not. In short, a changeover of this nature (Flexnet or some other system) would not be entirely painless.

Is Flexnet a workable networking option in Wisconsin? Only real working experience will truly tell if it is. It may appear not, simply because our neighbors would certainly have a tough time interfacing with us. Add to that the fact that there is no support for it in MSYS (the BBS software of choice in Wisconsin) as well as other popular Host TNC programs, and the deck is somewhat stacked against it. With the continuing incorporation of the Internet into packet radio, it would seem most likely to use TCP/IP as a networking protocol. However, there are some elements of Flexnet that certainly can be incorporated in some kind of radio adaptation of TCP/IP. So it is certainly worth testing, for those of you who are interested in digital networking.

So if you are hardy digital experimenter, research it via the World-Wide-Web and check it out yourself. Find out what others have to say about it and try it.

That's all for this time out, 73 from Andy.

Virginia governor signs statewide ham antenna bill

Hams in Virginia are celebrating that state's new Amateur Radio antenna bill that limits local regulation of Amateur Radio antennas. Gov Jim Gilmore signed the measure this week, and it becomes law on July 1.

Success followed an intense lobbying effort on the part of Virginia's Amateur Radio Community to get the bill approved by the General Assembly and signed by the governor. Bob Ham, KK4IY, of Vinton was the prime

mover behind the bill. He, in turn, commended the bill's patron, state Sen John Edwards of Roanoke for "an outstanding job above and far beyond the call of duty." But victory did not come without some compromises.

For all areas of the state, the bill--Senate Bill 480, "Placement of Amateur Radio Antennas"--incorporates the essence of the limited federal pre-emption known as PRB-1 into the Commonwealth's statutes. It requires local ordinances involving the placement, screening, or height of antennas to impose the "minimum regulation necessary to accomplish the locality's legitimate purpose."

The original bill would have prohibited all localities from restricting antenna height to less than 200 feet above ground level "unless an Amateur Radio antenna clearly represents an unreasonable risk to human health or life." The version ultimately signed by the governor keeps the 200 feet regulatory minimum in localities having a population density of fewer than 120 persons per square mile according to the 1990 US Census, and provides for a 75 feet regulatory minimum height in more densely populated communities. Localities may not regulate the number of support structures in either case.

The new law would require "reasonable and customary engineering practices" be followed in erecting towers. Municipalities would still be able to set "reasonable requirements" on screening, setback, placement, and health and safety requirements.

The measure faced fierce opposition from the Virginia Municipal League and the Virginia Association of Counties. When it was introduced January 26 many observers gave the bill little chance of success. Now, its proponents are hoping it will serve as a model for other states.

"This legislation will be looked upon by the rest of the country, and I am sure, will be emulated," said Virginia SEC and RACES Officer Frank Mackey, K4EC. Mackey acknowledged that the bill's success was built upon public service and emergency communication needs. "Only a small percentage of active hams are involved in this type of communications," Mackey said. "But without those hams justifying our cause there would be no rag chewing, DXing, contesting or the many other facets of our hobby."

Mackey urged his fellow amateurs to become involved in public service work.

Ham expressed "heartfelt thanks" to all who participated by sending e-mail, writing letters, making telephone calls, sending faxes, or appearing at the hearings. "Without the full support of the Virginia Amateur Radio community, this legislation would not have become law," he said. "We, as Virginia Amateurs, have a right to be proud of our efforts."

Ham has proposed forming The Virginia Association of Radio Amateurs as a non-profit entity to serve as a watchdog agency "to assure that the new law is implemented correctly and to come to the aid of Virginia Amateurs who might experience difficulties with a locality in the future."

For more information, see
<http://rbnet.com/~hamcotec/sb480.html>.
 The ARRL Letter, 4/17/98

THE TEST POINT

(continued from page 3)

SHEBOYGAN, WI

Wednesday dates: Registration 1830 hrs, testing 1900 hrs.

Saturday dates: Registration 0830 hrs, testing 0900 hrs.

Testing site is: Red Cross/Boy Scout Office Building (lower level), 2032 Erie Ave., Sheboygan, WI.

Test site has limited handicap accessibility. Walk-ins are OK but preregistration would be appreciated. Test fee is \$6.35. Make checks payable to SCARC VE Testing. All class tests administered. Contact: Art Pahr, K9XJ, (920) 876-2370. e-mail <k9xj@excel.net>

ONALASKA, WI (ARRL/VEC)

The Riverland Amateur Radio Club will hold test sessions at the Onalaska Public Library, 741 Oak Avenue South, registration



Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call)
 K9ODK (Robert L. Prine Memorial Call)

Raymond J. Matlosz, N9MLZ, Secretary
 450 West 2nd Street • Reedsburg, WI 53959



Material from the Yellow Thunder Amateur Radio Club was not received by Badger State Smoke Signals by the publishing deadline for this issue. We expect to have their minutes and other information in the June 1998 issue of BSSS. The YTARC meetings are held at the Baraboo Civic Center in Baraboo, WI.

The Circus City Swapfest, sponsored by the Yellow Thunder Amateur Radio Club will be held at the Sauk

begins at 9:00 a.m. with testing at 9:15 a.m. Please bring two forms of identification and two copies of all original documents, CSCEs, license, etc. For more information contact: Roger Reader, KA9BKK, 526 13th Ave. N., Onalaska, WI 54650. (608) 783-0732.

MEDFORD, WI (ARRL/VEC)

Taylor County Area AREC. Registration starts 8:30 a.m., testing starts 9:00 a.m. Location: The conference room in the lower level of the Sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Take Ogden St. west off of Hwy. 13 to the courthouse. Park in the lots on the east or south sides of the courthouse or on the street. PLEASE use the entrance on the south side of the courthouse and watch of the signs. Walk-ins welcome. Contact: Tom Hrdina, N9GEN, 2373 Willow Ave., Medford, WI 54451. (715) 748-4054

ARLINGTON HEIGHTS, IL (ARRL/VEC)

Contact: Frank Stankiewicz, (847) 437-1464.

CEDARBURG, WI - ORC HAMFEST

EAU CLAIRE, WI - ECARC HAMFEST

GREEN BAY, WI - ARESHAMFEST

HAYWARD, WI - HAYWARD HAMFEST

KAUKAUNA, WI - SWAPFEST

MANITOWOC, WI - LAKESHORE HAMFEST

MARSHFIELD, WI - HAMFEST

OAK CREEK, WI - SMARC HAMFEST

RACINE, WI - RACINE HAMFEST

RHINELANDER, WI - NWARC SWAPFEST

ROCKFORD, IL - RARC HAMFEST

ROTHSCHILD, WI - WVRA HAMFEST

SOUTH MILWAUKEE, WI - SMARC HAMFEST

County Fairgrounds on August 8, 1998

Information on the Yellow Thunder Amateur Radio Club, The Circus City Swapfest and the club meetings can be obtained from Steve Schulze, N9UDO, (608) 356-2313/356-4777 or Bill Klinkner, N9KXX (608) 643-6908/643-6453. Information is also available on the internet at <http://www.thelorax.com>

STEVENS POINT, WI - CWRA SWAPFEST

WAUKESHA, WI - KMRA SWAPFEST

WAUKESHA, WI - MIDWINTER SWAPFEST

DUBUQUE, IA - HAMFEST See the Swapfest column

for additional information and contact persons.

DUBUQUE, IA - ARRL/VEC

Dubuque Hamfest. Contact: Carl Clark, N0KAX, 2145 Delicia Drive, Dubuque, IA 52001. (319) 557-9149.

LOVE SPARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (W5YI VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Eksten, W9SS, (815) 877-6768.

MINNESOTA TEST INFORMATION

From "The Ground Wave", Saint Paul Radio Club.

Saint Paul Radio Club (SPRC)

Contact: Ed VanCleave, W0VC, (612) 636-0108

Test Site: St. Paul Technical College

235 Marshall Ave.

St Paul, MN

TESTING: First Saturday of the month, 8:30 a.m.

Anoka Amateur Radio Club (AARC)

Contact: Craig Johnson, AA0ZZ (612) 483-3143

Test Site: Blaine City Hall

9150 Central Ave NE

Blaine, MN

TESTING: Second Saturday of the month, 9:00 a.m.

Bloomington Office of Emergency Management

(Bloomington Amateur Radio Club (BARC))

Contact: Dan Royer, KE0OR (612) 888-9756

Test Site: Fire Station No. 1

94th St. & Nicollet Avenue S.

Bloomington, MN

TESTING: Fourth Saturday of the month, 9:00 a.m.

Valley Amateur Radio Club (VARC)

Contact: Bill Martin, A10D (612) 432-0438

Test Site: Hayes Community Center

14601 Hayes Road

Apple Valley, MN

TESTING: Second Thursday of the month 7:00 p.m.

W5YI Group

Contact: Dave Ranney, N0AXL (612) 542-2553

Test Site: Eden Prairie Library

479 Eden Prairie Drive

Eden Prairie, MN

TESTING: Third Tuesday of the month 6:30 p.m.

SE Metro Area Radio Club (SEMARC)

Contact: Dave Harrell, K0BTE (612) 459-8678

Test Site: Cottage Grove fire Station 8641 80th ST., S

Cottage Grove, MN

TESTING: Third Saturday of the month, 9:00 a.m.

The times and places listed above are the usual time and place for each VE team. Occasionally, sessions are canceled or changed. It is a good idea to call ahead to confirm the test time and place



EAU CLAIRE AMATEUR RADIO CLUB

15th ANNUAL

HAMFEST & COMPUTER EXPO

Eau Claire County Exposition Center - Eau Claire, WI

- Get Your Tickets and Table Reservations Early -

Doors Open at 8:00 AM - Saturday July 11, 1998

Advanced Exhibitor Setup - Friday 5:00 PM to 10:00 PM & Saturday 6:00 AM - Security Provided Friday Night

- | | | |
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| * Monitors/Printers/Modems | * FREE PARKING | * Commercial Dealers |
| * Electronic Components | * Handicap Accessible | * Antennas VHF/UHF |

RAFFLE PRIZE DRAWING

First Prize	KENWOOD TM-261A
Second Prize	ICOM IC-T22A
Third Prize	HP-DeskJet Color Printer
Fourth Prize	MFJ 116 12/24 Hour Clock

Raffle Prize Drawing 1:00 PM on 07/11/98

Need Not Be Present To Win Raffle Prize

VE EXAMINATIONS

Saturday July 11 - 9 AM to 12 PM

To Take The Exam You Must Bring The Following:

Orig & Copy of Your Current License (If Any)

Orig & Copy of Your C.S.C.E. (If Any)

Sufficient Knowledge To Pass The Examination

Photo ID

Test Fee: \$ 6.35

* FREE COFFEE *

Delicious Food - Reasonable Prices

Down load a reservation form from our Web Page

<http://www.ecarc.org>

TICKETS & TABLES

Admission - Advance \$ 5.00

At The Door - \$ 6.00

Raffle Ticket \$ 1.00 6 for \$ 5.00

Tables (8 ft Tables) \$ 10.00

Tailgating (Does Not Include Table) \$ 5.00

- Information or Advance Registration Form -

Jim Staatz KG9MV Carol Ceraso N9TUA

715-838-9108 715-723-9205

kg9mv@ecol.net ceraz@execpc.com

Make Check Payable To: E.C.A.R.C.

P.O. Box 1867 Eau Claire, WI 54702-1867

DIRECTIONS

I-94/Hwy 93 Exit (68) at Eau Claire, South on Hwy 93 1/4 mile, then right on Lorch Ave between Ken Vance & Jim Carter Ford to the Exposition Center.

* Talk-in on the E.C.A.R.C. 146.31/91 Repeater *



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SWAPFESTS



27TH ANNUAL MIDWINTER SWAPFEST

WAUKESHA EXPOSITION
CENTER

WAUKESHA, WISCONSIN

SATURDAY

JANUARY 9, 1999

1997 WINNERS
Christopher D. Molek, KB9GTK
Richard Center, WI
Steven D. Miller, KB9DFE
Spencer, WI
Amy L. Thachac, N9TLN
Wisconsin Rapids, WI

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MADISON SWAPFEST

SUNDAY, APRIL 5, 1998

John Q. Hammons Trade Center

1313 John Q. Hammons Drive

Just west of intersection of Beltline and Greenway Blvd.

Sponsored by MARA/W9HSY

P. O. Box 8890

Madison, WI 53708-8890

Swapfest Information Line: (608) 245-8890

SOUTH MILWAUKEE AMATEUR RADIO CLUB

SWAPFEST 98

July 11, 1998

(Held every July)

American Legion Park

Shepard Avenue • Oak Creek, WI

(414) 762-3235

Extension 58

P. O. Box 102

South Milwaukee, WI 53172

FOX CITIES HAMFEST

Sunday, November 8, 1998

Starlite Club, Hwy. 55 north of Kaukauna

HAMFEST INFO: Chad Pennings, N9PRC

1912 Russett Ct., Apt. 7 • Appleton WI 54914

(920) 993-0485

EXAM INFO: Larry Siebers, KD9IA • (920) 759-1167

HTTP://W9ZL.AMPR.ORG

Lakeshore Hamfest

and Computer Swapfest

Manitowoc County Expo

Intersection of Hwys. 42-151 and I-43 on Cty. Hwy. R

Saturday, May 9, 1998

For more information, call:

Glenn, AA9MT: 920-684-7096

Red, N9GHE: 920-684-9097

ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

TRI-COUNTY ARC PRESENTS

HAMFEST 1998

YOUR SPRING FAVORITE!

Sunday, March 15, 1998

Jefferson County Fairgrounds

TCARC • 213 Frederick Street

Fort Atkinson, WI 53538

414-563-6381

Evenings

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21st annual Swapfest and Auction

SUNDAY, JUNE 7, 1998

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Information: Call, write, or email John Feltz, W9JN

973 E. 1st St., Junction City WI 54443-9614 • (715) 457-2506

E-MAIL: jfw9jn@tzn.net

Eau Claire Amateur Radio Club

HAMFEST

Saturday, July 11, 1998 8:00 AM

Eau Claire County Exposition Center

Advance Tickets \$ 5.00 at the door \$ 6.00

Tables \$ 10.00 - Tailgate \$ 5.00

S.A.S.E. to: ECARC

P.O. Box 1867 Eau Claire, WI 54702-1867

http://www.ecarc.org

RACINE AMATEUR RADIO AND COMPUTER SHOW

Sunday, July 26, 1998

8 A.M. - 2 P.M.

SOUTH HILLS COUNTRY CLUB I-94

East Frontage Road Between Highway 20 and Highway K

OUTDOOR AND INDOOR SALES

Free Tailgating • Air Conditioned • Commercial Dealers • Forums

TABLES \$8.00

Advance Tickets SASE and \$4.00

Send to RMC, P.O. Box 3, Racine, WI 53401

Ozaukee Radio Club

20TH ANNUAL RADIO AND

COMPUTER SWAPFEST

Saturday, May 2, 1998

8 a.m. to 1 p.m. • Circle B Recreation Center

Intersection of Highway 60 and County I

Exams by Badger Examiners, c/o Gary Sharbuno,

5119 W. Willow Rd., Brown Deer, WI 53222

Swapfest sponsored by the Ozaukee Radio Club

W58 N985 Essex Drive, Cedarburg, WI 53012-1439

Circus City Swapfest

Sponsored by The Yellow Thunder Amateur Radio Club

Saturday August 8, 1998 • 7 a.m. - noon

Sauk County Fairgrounds • Baraboo, WI

Vendors • Concessions
Camping • Free Parking
Tail Gate Area

\$4 - Advanced
\$5 - At Gate
8 Foot Tables - \$5

Steve Schulze, N9UDO
(608) 358-2313/356-4777

Bill Klinkner, N9KXX
(608) 643-6908/643-6453

http://www.thelox.com/~sschulze/hamfest.htm

Red Cedar Repeater Association, Inc.

AUCTION

February 23, 1999 • 7:00 p.m.

American Legion Post 53 • 634 Water Street

Eau Claire, WI

CONTACT:

Steve Hart, KA9OMC
E616 810th Ave.

715-665-2374
Knapp, WI 54749

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Craig Henderson

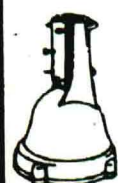
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